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=> d stat que l10
L1            27 SEA FILE=REGISTRY ABB=ON  PLU=ON  OMPC/BI
L2             4 SEA FILE=REGISTRY ABB=ON  PLU=ON  PANCA/BI
L5           145 SEA FILE=REGISTRY ABB=ON  PLU=ON  IGA/BI
L6         14704 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 OR IGA OR IMMUNOGLOBULIN(W)
                  A
L7           574 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L1 OR OMPC OR OMP(W)C
L8            61 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L2 OR PANCA OR PERINUCLEAR(W)A
                  NCA
L9           362 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTI(W)(L7 OR L8 OR SACCHAROMY
                  CES OR CEREVISIAE OR (I2 OR I(W)2)(W)?PEPTIDE? OR NEUTROPHIL)
L10            9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L6 AND L9


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L10  ANSWER 1 OF 9  HCAPLUS  COPYRIGHT 2001 ACS
ACCESSION NUMBER:        2001:40834  HCAPLUS
TITLE:                   Myeloperoxidase anti-neutrophil
                         cytoplasmic antibody (MPO-ANCA)-positive microscopic
                         polyarteritis (MPA) associated with hashimoto's
                         thyroiditis and increased serum rheumatoid factor
AUTHOR(S):               Kageyama, Yo; Hamaguchi, Kinichi
CORPORATE SOURCE:        Department of Internal Medicine, Tochigi National
```

Hospital, Tochigi, 320-8580, Japan
SOURCE: Clin. Exp. Nephrol. (2000), 4(4), 335-340
CODEN: CENPFV; ISSN: 1342-1751
PUBLISHER: Japanese Society of Nephrology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB An autopsy case of microscopic polyarteritis (MPA) assocd. with Hashimoto's thyroiditis that showed glomerular Ig and complement depositions and high titers of rheumatoid factor and myeloperoxidase **anti-neutrophil** cytoplasmic antibody (MPO-ANCA) is reported. A 72-yr-old woman was admitted to our hospital because of renal failure that had deteriorated from a serum creatinine value of 175.8 to 1874.1 .mu.mol/l in 4 wk. Lab. studies on admission revealed proteinuria, numerous red blood cells, granular casts and red blood casts in the urine, increased serum blood urea nitrogen (47.8 mmol/l), anemia (Hb, 60 g/l), and thrombocytopenia (platelets, 71 .times. 109/l). Emergency hemodialysis was started; however, the patient died on the fifth hospital day because of ventricular tachycardia, and an autopsy was performed. At autopsy, the patient was found to have had increased serum levels of immune complexes, rheumatoid factor, IgG rheumatoid factor, myeloperoxidase **anti-neutrophil** cytoplasmic antibody (MPO-ANCA), anti-thyroglobulin antibody, and anti-thyroid peroxidase antibody, and decreased serum complement levels. Microscopic examn. revealed crescentic glomerulonephritis in almost all glomeruli, and pos. granular deposits of IgG, **IgA**, IgM, C1q, C3, and C4 in the mesangium and along the capillary walls. Typical fibrinoid necrosis was found in the small arteries of the stomach, colon, small intestine, and bladder. Finally, Hashimoto's thyroiditis was noted. To our knowledge, this is the first case of MPO-ANCA-pos. MPA assocd. with Hashimoto's thyroiditis and increased serum rheumatoid factor levels.

REFERENCE COUNT: 21
REFERENCE(S):
(2) Breedveld, F; Clin Rheumatol 1985, V4, P353 MEDLINE
(3) Calder, E; BMJ 1974, V2, P30 MEDLINE
(4) Coremans, I; Arthritis Rheum 1992, V35, P1466 MEDLINE
(5) Dhib, M; J Rheumatol 1996, V23, P1636 MEDLINE
(11) Kimura, S; Proteins 1988, V3, P113 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:101335 HCAPLUS
DOCUMENT NUMBER: 133:88106
TITLE: **IgA** nephropathy with myeloperoxidase **anti-neutrophil** cytoplasmic antibodies (MPO ANCA): a discrepancy between the histological activity and MPO ANCA
AUTHOR(S): Fujimoto, Takashi; Matsui, Masako; Ikeda, Yukiko; Shiiki, Hideo; Umemura, Yasunori; Nonaka, Hideo; Dohi, Kazuhiro
CORPORATE SOURCE: First Department of Internal Medicine, Nara Medical University, Nara, 630-0813, Japan
SOURCE: Clin. Exp. Nephrol. (1999), 3(4), 307-310
CODEN: CENPFV; ISSN: 1342-1751
PUBLISHER: Japanese Society of Nephrology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB **Anti-neutrophil** cytoplasmic antibodies (ANCA) of the IgG type are assocd. with rapidly progressive glomerulonephritis. Such

antibodies have been detected only rarely in patients with Henoch-Schonlein purpura (HSP) or **IgA** nephropathy (IgAN). We report a patient with biopsy-proven IgAN with fibrous crescents in whom high titers of IgG ANCA occurred and were confirmed to be anti-myeloperoxidase antibodies (MPO ANCA) by solid-phase ELISA and inhibition studies. During a 1-yr follow-up period, high titers of MPO ANCA persisted but creatinine clearance remained over 50mL/min per 1.48m. This case suggests the lack of a reliable assocn. between fulminant outcome of IgAN with crescents and high titers of IgG MPO ANCA, and indicates the involvement of subsets of IgG MPO ANCA which recognize important or unimportant epitopes of MPO in the pathogenesis.

REFERENCE COUNT: 13

REFERENCE(S):
(1) Esnault, V; J Autoimmun 1993, V6, P197 MEDLINE
(2) Hagen, E; J Immunol Methods 1993, V159, P1 HCAPLUS
(3) Locke, I; Clin Exp Immunol 1999, V115, P369 MEDLINE
(9) Ronda, N; Clin Exp Immunol 1994, V95, P49 HCAPLUS
(12) Tomizawa, K; J Clin Immunol 1998, V18, P142 HCAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:753431 HCAPLUS
DOCUMENT NUMBER: 131:350239
TITLE: Diagnosis of inflammatory bowel disease
INVENTOR(S): Walsh, Michael J.; Rose, Steven L.
PATENT ASSIGNEE(S): Prometheus Laboratories, Inc., USA
SOURCE: PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9960403	A1	19991125	WO 1999-US10371	19990511
W: AU, CA, IL, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6218129	B1	20010417	US 1998-79435	19980515
AU 9939830	A1	19991206	AU 1999-39830	19990511
EP 1086376	A1	20010328	EP 1999-922946	19990511
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, IE, FI				

PRIORITY APPLN. INFO.: US 1998-79435 A 19980515
WO 1999-US10371 W 19990511

AB The authors disclose a method of diagnosing inflammatory bowel disease (IBD) in an individual. The method comprises detg. the presence of **anti-neutrophil** cytoplasmic antibodies (ANCA), the presence of **anti-Saccharomyces** cerevisiae **IgA** (ASCA-**IgA**), and the presence of **anti-Saccharomyces** cerevisiae IgG (ASCA-IgG). The method provides for the differential diagnosis of Crohn's disease and ulcerative colitis.

REFERENCE COUNT: 4

REFERENCE(S):
(1) Colombel; Clinical and Experimental Immunology 1998, V112, P22
(2) Giaffer; Gut 1992, V33, P1071 MEDLINE
(3) Saxon; Journal of Allergy and Clinical Immunology 1990, V86(2), P202 MEDLINE

(4) Sendid; Clinical and Diagnostic Laboratory Immunology 1996, V3(2), P219 HCAPLUS

L10 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:609811 HCAPLUS
DOCUMENT NUMBER: 131:335649
TITLE: **Anti-neutrophil** cytoplasmic antibodies (ANCA) against bactericidal/permeability-increasing protein (BPI) and cystic fibrosis lung disease
AUTHOR(S): Mahadeva, R.; Dunn, A. C.; Westerbeek, R. C.; Sharples, L.; Whitehouse, D. B.; Carroll, N. R.; Ross-Russell, R. I.; Webb, A. K.; Bilton, D.; Lomas, D. A.; Lockwood, C. M.
CORPORATE SOURCE: Respiratory Medicine Unit, Departments of Medicine and Haematology, Cambridge Institute for Medical Research, University of Cambridge, Cambridge, CB2 2QQ, UK
SOURCE: Clin. Exp. Immunol. (1999), 117(3), 561-567
CODEN: CEXIAL; ISSN: 0009-9104
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Persistent infection with Pseudomonas aeruginosa and inflammatory mechanisms play an important role in cystic fibrosis (CF) lung disease. ANCA against BPI, a potent host defense protein with anti-bacterial and anti-endotoxin properties, have been described in CF. We have assessed the relationship of anti-BPI antibodies to pulmonary disease severity in 148 CF subjects. **IgA** and IgG anti-BPI antibodies were found in 55.4% and 70.3% of CF patients, resp., and higher levels were strongly assocd. with colonization with P. aeruginosa (P = 0.001 and 0.039 for **IgA** and IgG antibodies, resp.). **IgA** and IgG anti-BPI antibodies were independently assocd. with more severe lung disease as assessed by chest radiograph score (P = 0.023) and a significantly lower forced expiratory vol. in 1 s (FEV1)% (P = 0.01). The pathophysiol. relevance of the autoantibodies was investigated further by detg. their epitope specificity and their effect on bacterial phagocytosis in vitro. Both isotypes of anti-BPI antibodies were specific for the C-terminus of BPI shown recently to be important for BPI-mediated opsonization, and in vitro affinity-purified anti-BPI antibodies significantly reduced BPI-induced phagocytosis of Escherichia coli compared with controls. These data indicate that anti-BPI autoantibodies are assocd. with colonization with P. aeruginosa and worse lung disease in CF. The inhibition of bacterial phagocytosis suggests that these autoantibodies may contribute to the persistence of P. aeruginosa in the CF lung and so play a role in perpetuating CF lung damage.
REFERENCE COUNT: 31
REFERENCE(S): (1) Abrahamson, S; J Biol Chem 1997, V272, P2149 HCAPLUS
(4) Davies, J; Immunol Cell Biology 1997, V75, P113 HCAPLUS
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ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:483325 HCAPLUS
DOCUMENT NUMBER: 131:129061

TITLE: Methods of diagnosing clinical subtypes of Crohn's disease
INVENTOR(S): Targan, Stephan R.; Vasiliauskas, Eric A.; Plevy, Scott E.; Barry, Mary J.
PATENT ASSIGNEE(S): Cedars-Sinai Medical Center, USA; Prometheus Laboratories Inc.
SOURCE: U.S., 20 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5932429	A	19990803	US 1997-837059	19970411
PRIORITY APPLN. INFO.:			US 1996-630672	19960412

AB Provided herein is a method of diagnosing a clin. subtype of Crohn's disease (CD) by detg. whether perinuclear **anti-neutrophil** antibody (pANCA) is present in a patient with CD, where the presence of pANCA indicates a clin. subtype of CD with features of ulcerative colitis (UC). Also provided is a method of diagnosing a clin. subtype of Crohn's disease in a patient with CD by detg. whether pANCA or speckling anti-pan polymorphonuclear antibody (SAPPA) is present in the patient with CD, where the presence of pANCA indicates a clin. subtype of CD with features of ulcerative colitis and where the presence of SAPPA indicates a clin. subtype of CD having perforating, fistulizing or small bowel obstructive disease. The invention further provides a method of diagnosing a clin. subtype of Crohn's disease in a patient with CD by detg. the presence or absence of ANCA, pANCA, SAPPA and **anti-Saccharomyces** cerevisiae antibodies (ASCA) in the patient with CD, where the presence of pANCA combined with the absence of ASCA indicate a clin. subtype of CD with features of UC, the presence of SAPPA indicates a clin. subtype of CD having perforating or fistulizing disease or small bowel obstructive disease, and the presence of ASCA combined with the absence of ANCA indicates a clin. subtype of CD lacking features of ulcerative colitis and having perforating or fistulizing disease or small bowel obstructive disease. Kits for diagnosing a clin. subtype of Crohn's disease, which contain neutrophil and antigen specific for ASCA, also are provided.

REFERENCE COUNT: 28
REFERENCE(S):
(2) Barnes; Int Arch Allergy Appl Immunol 1990, V92, P9 MEDLINE
(3) Broekroelofs; Dig Dis Sci 1994, V39, P545 MEDLINE
(4) Cambridge; Gut 1992, V33, P668 MEDLINE
(5) Duerr; Gastroenterol 1991, V100, P1590 MEDLINE
(22) Sendid; Clinical and Diagnostic Laboratory Immunology 1996, V3, P219 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:716216 HCAPLUS
DOCUMENT NUMBER: 129:313136
TITLE: Methods of diagnosing a medically resistant clinical subtype of ulcerative colitis
INVENTOR(S): Plevy, Scott E.; Targan, Stephan R.
PATENT ASSIGNEE(S): Cedars-Sinai Medical Center, USA
SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9846997	A1	19981022	WO 1998-US6947	19980409
W: AU, CA, IL, JP, MX, NO, NZ				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5968741	A	19991019	US 1997-837302	19970411
AU 9869562	A1	19981111	AU 1998-69562	19980409
EP 975965	A1	20000202	EP 1998-915355	19980409
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, IE, FI				

PRIORITY APPLN. INFO.: US 1997-837302 19970411
WO 1998-US6947 19980409

AB The present invention provides serol. and genetic methods of diagnosing a medically resistant clin. subtype of ulcerative colitis (UC). The present invention provides a method of diagnosing a medically resistant clin. subtype of UC by detg. the presence or absence of **anti-Saccharomyces** cerevisiae antibodies (ASCA) in a patient with UC, where the presence of ASCA indicates the medically resistant clin. subtype of UC. The present invention also provides a method of diagnosing a medically resistant clin. subtype of UC by detg. the presence or absence of a TNFa2b1c2d4e1 haplotype in a patient with UC, where the presence of said TNFa2b1c2d4e1 haplotype indicates the medically resistant clin. subtype of UC. In addn., the invention provides a method of diagnosing a medically resistant clin. subtype of UC by detg. the presence or absence of a TNFa2b1c2d4e1 haplotype in a patient with UC and detg. the presence or absence of ASCA in the patient with UC, where the presence of said TNFa2b1c2d4e1 haplotype indicates the medically resistant clin. subtype of UC and the presence of ASCA independently indicates the medically resistant clin. subtype of UC. The invention further provides kits for diagnosing a medical resistant clin. subtype of UC contg. antigen specific for ASCA and one or more oligonucleotide primers complementary to a nucleotide sequence flanking TNF microsatellite locus TNFa, TNFb, TNFc, TNFd or TNFe.

L10 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:724413 HCAPLUS
DOCUMENT NUMBER: 128:74000
TITLE: Significance of ANCA in diagnosing glomerulonephropathy
AUTHOR(S): Gu, Ji'an; Xu, Yuanchu; Shen, Xia
CORPORATE SOURCE: Shanghai Wusong District Center Hospital, Shanghai, 200940, Peop. Rep. China
SOURCE: Shanghai Yixue (1997), 20(2), 89-91
CODEN: SIHSD8; ISSN: 0253-9934
PUBLISHER: Zhonghua Yixuehui Shanghai Fenhui
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB **Anti-neutrophil** cytoplasmic antibodies (ANCA) in serum samples from 45 healthy controls and 84 subjects with glomerulonephritis were detd. using indirect immunofluorescence (IIF). The ANCA pos. rate in the group of crescent glomerulonephritis and necrotic glomerulonephritis was 66.7%, the **IgA** nephropathy was 20%. In other glomerulonephritis, the ANCA pos. rates in unclassified, GN and SLE nephritis were 6.7, 10.3 and 44.4%, resp. The static results of the 5

groups showed that the ANCA pos. rate was significantly different. The pos. rate in crescent GN, necrotic GN and SLE nephritis were significantly higher than other groups. The results suggest that the detection of ANCA is specific and sensitive for diagnosis and differential diagnosis of glomerulonephritis with small angitis GN and multiples angitis GN.

L10 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1994:555172 HCAPLUS
DOCUMENT NUMBER: 121:155172
TITLE: Anti-proteinase 3 antibodies, their characterization and disease associations
AUTHOR(S): Jennings, J. G.; Chang, L.; Savige, J. A.
CORPORATE SOURCE: Dep. Haematol., Heidelberg Repatriation Hosp., Heidelberg, Australia
SOURCE: Clin. Exp. Immunol. (1994), 95(2), 251-6
CODEN: CEXIAL; ISSN: 0009-9104
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Anti-proteinase 3 antibodies are a subgroup of **anti-neutrophil** cytoplasmic antibodies (ANCA), and the authors have established an ELISA for their detection using high performance liq. chromatog. (HPLC)-purified protein. This assay is sensitive and specific: inhibition studies have shown that despite the homol. between proteinase 3 and elastase there is no cross-reactivity between the corresponding antibodies for their targets. Anti-proteinase 3 antibodies were assocd. most often with cytoplasmic fluorescence (17/22, 77%), but occasionally with a perinuclear (3/22, 14%) or atypical pattern (1/2). These antibodies were found in 23 out of 76 sera (30%) that were pos. in an ELISA based on a crude neutrophil cytoplasmic ext., and they were assocd. with both 29 and 55 kD bands on Western blots. Anti-proteinase 3 antibodies were found in most individuals with active Wegener's granulomatosis (10/13, 77%), but less often in individuals with microscopic polyarteritis (2/10, 20%) or segmental necrotizing glomerulonephritis (3/6, 50%). However, anti-proteinase 3 antibodies were not detected in any of 32 sera from individuals with rheumatoid arthritis or systemic lupus erythematosus (SLE). Occasionally anti-proteinase 3 antibodies were uncommon (2/22 sera, 9%), and no **IgA** antibodies were demonstrated in any of 22 sera from patients with active systemic vasculitis. Significantly more individuals presented with anti-proteinase 3 antibodies in Apr.-May-June, suggesting that an infective agent prevalent in autumn might have a causative role in the assocd. diseases. Anti-proteinase 3 antibodies are the most common target antigen assocd. with Wegener's granulomatosis and cytoplasmic fluorescence.

L10 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1994:189481 HCAPLUS
DOCUMENT NUMBER: 120:189481
TITLE: Antineutrophil cytoplasm antibodies (ANCA) of **IgA** isotype in adult Henoch-Schoenlein purpura
AUTHOR(S): Ronda, N.; Esnault, V. L. M.; Layward, L.; Sepe, V.; Allen, A.; Feehally, J.; Lockwood, C. M.
CORPORATE SOURCE: Sch. Clin. Med., Univ. Cambridge, Cambridge, 43100, UK
SOURCE: Clin. Exp. Immunol. (1994), 95(1), 49-55
CODEN: CEXIAL; ISSN: 0009-9104
DOCUMENT TYPE: Journal
LANGUAGE: English
AB ANCA are assocd. with certain forms of systemic vasculitis, and have been reported previously to be of the IgG and IgM isotype. The authors examd. the possible assocn. between **IgA** ANCA and the **IgA**

-related diseases Henoch-Schoenlein purpura (HSP) and **IgA** nephropathy (IgAN). **IgA** and IgG ANCA were detected by isotype-specific solid-phase competitive inhibition tests and by indirect immunofluorescence. The possible interference by **IgA** rheumatoid factor was excluded. **IgA** ANCA was detected in sera from 11/14 HSP patients (79%), from 1/30 IgAN patients (3%), from 1/40 patients with vasculitides classically assocd. with IgG ANCA (2.5%), and in none of 60 sera from healthy blood donors. IgG ANCA were present with **IgA** ANCA in three patients with HSP. Only one HSP serum had anti-myeloperoxidase (MPO) activity by both **IgA** and IgG isotype-specific ELISA, and none was pos. for proteinase 3 (PR3). Western blot anal. performed with neutrophil ext. showed that the four strongest **IgA** ANCA-pos. HSP sera reacted with a 51-kD protein; Western blot performed on cellular fractions showed that this protein is primarily membrane-assocd., and different from fibronectin. Apparently, adult HSP is closely assocd. with circulating **IgA** ANCA, which may be directed against a different autoantigen than that recognized by IgG ANCA.

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L1           27 SEA FILE=REGISTRY ABB=ON  PLU=ON  OMPC/BI
L2            4 SEA FILE=REGISTRY ABB=ON  PLU=ON  PANCA/BI
L5          145 SEA FILE=REGISTRY ABB=ON  PLU=ON  IGA/BI
L6        14704 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 OR IGA OR IMMUNOGLOBULIN(W)
                A
L7          574 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L1 OR OMPC OR OMP(W)C
L8           61 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L2 OR PANCA OR PERINUCLEAR(W)A
                NCA
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L12         243 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (CROHN? OR INFLAMMATORY(W)BOWE
                L(W)DISEASE? OR IBD)(L)(L7 OR L8 OR (I2 OR I(W)2)(W)?PEPTIDE?
                OR NEUTROPHIL OR ANTINEUTROPHIL? OR ANCA OR ASCA)
L13           9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L12 AND (SACCHAROMYCES OR
                CEREVISIAE)
L14           7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13 NOT L10


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L14  ANSWER 1 OF 7  HCAPLUS  COPYRIGHT 2001 ACS
ACCESSION NUMBER:        2001:320545  HCAPLUS
TITLE:                   IgG subclasses of anti saccharomyces
                         cerevisiae antibody in inflammatory bowel
                         disease
AUTHOR(S):               Oshitani, N.; Hato, F.; Jinno, Y.; Sawa, Y.; Nakamura,
                         S.; Matsumoto, T.; Seki, S.; Kitagawa, S.; Arakawa, T.
CORPORATE SOURCE:        Third Department of Internal Medicine, Osaka City
                         University Medical School, Osaka, 545-8585, Japan
SOURCE:                  Eur. J. Clin. Invest. (2001), 31(3), 221-225
                         CODEN: EJCIB8; ISSN: 0014-2972
PUBLISHER:               Blackwell Science Ltd.
DOCUMENT TYPE:           Journal
LANGUAGE:                English
AB   Elevation of serum anti Saccharomyces cerevisiae
```

antibody (**ASCA**) has been reported in patients with **Crohn**
's disease. We analyzed the subclasses of Ig (Ig) G reaction in
ASCA in sera from patients with **inflammatory**
bowel disease, healthy controls, and patients with
intestinal Behcet's disease. Serum samples were obtained from 29 patients
with **Crohn**'s disease, 30 patients with ulcerative colitis, 7
patients with intestinal Behcet's disease, and 12 healthy controls. Serum
IgG subclasses IgG1, IgG2, IgG3, and IgG4 of **ASCA** were analyzed
using ELISA. IgG4 **ASCA** was significantly increased in patients
with **inflammatory bowel disease**. In
patients with intestinal Behcet's disease, IgG1, IgG3, and IgG4
ASCA were increased. Differential responses, in terms of
subclasses in **ASCA**, were found in patients with
inflammatory bowel disease and patients with
intestinal Behcet's disease, which may represent different
pathophysiologies of these intestinal inflammatory diseases.

REFERENCE COUNT: 29
REFERENCE(S):
(7) Charlton, B; Curr Opin Immunol 1995, V7, P793 HCAPLUS
(12) Jewell, D; Gut 1972, V13, P796 HCAPLUS
(22) Quinton, J; Gut 1998, V42, P788 HCAPLUS
(24) Schur, P; Ann Allergy 1987, V58, P89 HCAPLUS
(28) Taylor, K; Gastroenterology 1964, V46, P99 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:245263 HCAPLUS
TITLE: Anti-**Saccharomyces cerevisiae**
mannan antibodies and **antineutrophil**
cytoplasmic autoantibodies in Greek patients with
inflammatory bowel disease
AUTHOR(S): Koutroubakis, Ioannis E.; Petinaki, Efthymia; Mouzas,
Ioannis A.; Vlachonikolis, Ioannis G.;
Anagnostopoulou, Evangelia; Castanas, Elias; Maniatis,
Antonios N.; Kouroumalis, Elias A.
CORPORATE SOURCE: Department of Gastroenterology and Laboratory of
Clinical Immunology, University Hospital Heraklion,
Crete, Greece
SOURCE: Am. J. Gastroenterol. (2001), 96(2), 449-454
CODEN: AJGAAR; ISSN: 0002-9270
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The combined measurement of perinuclear **antineutrophil**
cytoplasmic autoantibodies (**pANCA**) and anti-
Saccharomyces cerevisiae mannan antibodies (**ASCA**
) has recently been suggested as a valuable diagnostic approach in
inflammatory bowel disease (**IBD**).
The aim of this study was to assess the value of detecting **pANCA**
and **ASCA** in the differentiation between ulcerative colitis (UC)
and **Crohn**'s disease (CD) in a Greek population with **IBD**
. Sera were collected from 157 patients with **IBD** (97 with UC,
56 with CD, and four with indeterminate colitis) and 150 healthy controls.
Detn. of **pANCA** was performed by a std. indirect
immunofluorescence technique on ethanol-fixed granulocytes and
ASCA by an ELISA assay. In patients with UC, sensitivity,
specificity, pos. predictive value, and neg. predictive value of the
pANCA test was 67%, 84%, 93%, and 46% resp. These values did not

change significantly when the combination of pos. **pANCA** and neg. **ASCA** was used. **ASCA** test in diagnosing CD yielded a sensitivity, specificity, pos. predictive value, and neg. predictive value of 39%, 89%, 54%, and 81%. The combination of **pANCA** neg. and **ASCA** pos. increased the pos. predictive value to 77% and it was assocd. with small bowel disease. A pos. **pANCA** test in Greek patients has a diagnostic value in confirming a diagnosis of UC. Measurement of **pANCA** and **ASCA** together has a rather limited value in the differential diagnosis between UC and CD but may be of help in studying disease heterogeneity.

REFERENCE COUNT: 36

REFERENCE(S): (2) Berberian, L; J Immunol 1994, V153, P3756 HCAPLUS
(8) Das, K; J Immunol 1993, V150, P2487 HCAPLUS
(12) Fricke, H; Eur J Clin Invest 1999, V29, P41 HCAPLUS
(24) Quinton, J; Gut 1998, V42, P788 HCAPLUS
(29) Sendid, B; Clin Diagn Lab Immunol 1996, V3, P219 HCAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2001:233853 HCAPLUS

TITLE: Comparative study of **ASCA** (Anti-**Saccharomyces cerevisiae** antibody) assays in **inflammatory bowel disease**

AUTHOR(S): Vermeire, Severine; Joossens, Sofie; Peeters, Marc; Monsuur, Fred; Marien, Godelieve; Bossuyt, Xavier; Groenen, Peter; Vlietinck, Robert; Rutgeerts, Paul

CORPORATE SOURCE: Gastroenterology Unit, Immunology, UZ Gasthuisberg, Louvain, Belg.

SOURCE: Gastroenterology (2001), 120(4), 827-833
CODEN: GASTAB; ISSN: 0016-5085

PUBLISHER: W. B. Saunders Co.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Background & Aims: Anti-**Saccharomyces cerevisiae** antibody (**ASCA**) is a serol. marker assocd. with **Crohn**'s disease (CD). Although there is still discussion on its clin. value, several companies each promote their own **ASCA** assay to be used in the gastroenterologist's practice at considerable expense. The aim of this study was to det. whether different **ASCA** assays agree sufficiently well for the results to be used interchangeably. Methods: Blood obtained from a large cohort of **IBD** patients with **inflammatory bowel disease** (**IBD**; 100 with CD, 100 with ulcerative colitis [UC]) and 178 controls (100 healthy blood donors and 78 patients with non-**IBD** diarrheal illnesses) was studied with 4 different **ASCA** assays. Sensitivity, specificity, and pos. predictive value were compared. Agreement between assays was evaluated. Results: Sensitivity of **ASCA** for CD ranged between 41% and 76%. Sensitivity was inversely related to specificity and pos. predictive value. Results correlated well overall (range = 0.54-0.90) and the different ROC curves showed good agreement. When recalcd. cutoff points were used, interchangeability increased. However, large differences were seen when abs. values were compared. Conclusions: A large range in sensitivities and specificities of **ASCA** for CD is seen with different **ASCA** assays, mainly as a consequence of the cutoff value chosen for each individual assay. Although agreement between and within assays is good, caution is important

when abs. values are used. Standardization of **ASCA** measurements is greatly needed.

REFERENCE COUNT: 15

REFERENCE(S):
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(9) Quinton, J; Gut 1998, V42, P788 HCAPLUS
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(15) Zweig, M; Clin Chem 1993, V39, P561 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:112376 HCAPLUS
TITLE: Method of diagnosing irritable bowel syndrome and other disorders caused by small intestinal bacterial overgrowth by detecting the presence of anti-**saccharomyces** cerivisiae antibodies (asca) in human serum
INVENTOR(S): Lin, Henry C.; Pimental, Mark
PATENT ASSIGNEE(S): Cedars-Sinai Medical Center, USA
SOURCE: PCT Int. Appl.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001011334	A2	20010215	WO 2000-US22168	20000811
WO 2001011334	A3	20010712		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-374143 A 19990811

AB Disclosed is a method of diagnosing small intestinal bacterial overgrowth (SIBO), irritable bowel syndrome, fibromyalgia, chronic fatigue syndrome, depression, attention deficit/hyperactivity disorder (ADHD), or an autoimmune disease by sampling serum from a human subject having a suspected diagnosis of any of these conditions and analyzing the serum for the presence of **ASCA**, which corroborates the suspected diagnosis. A method of determining a predisposition for developing **Crohn**'s, in a human subject who does not present a set of symptoms characteristic of the disease and who has small intestinal bacterial overgrowth, involves sampling serum from the subject and analyzing the serum for the presence or absence of **ASCA**. The presence of **ASCA** in the serum indicates a predisposition for developing **Crohn**'s disease. Also disclosed is a kit for diagnosing and treating small intestinal bacterial overgrowth, irritable bowel syndrome, fibromyalgia, chronic fatigue syndrome, depression, attention deficit/hyperactivity disorder, or an autoimmune disease, such as multiple

sclerosis or systemic lupus erythematosus. The kit is useful to improve symptoms, including hyperalgesia related to SIBO and disorders caused by SIBO.

L14 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:744885 HCAPLUS
DOCUMENT NUMBER: 134:309530
TITLE: Marker antibody expression stratifies Crohn's disease into immunologically homogeneous subgroups with distinct clinical characteristics
AUTHOR(S): Vasiliauskas, E. A.; Kam, L. Y.; Karp, L. C.; Gaiennie, J.; Yang, H.; Targan, S. R.
CORPORATE SOURCE: Department of Medicine, Cedars-Sinai Medical Center and the UCLA School of Medicine, Los Angeles, CA, 90048, USA
SOURCE: Gut (2000), 47(4), 487-496
CODEN: GUTTAK; ISSN: 0017-5749
PUBLISHER: BMJ Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Perinuclear **antineutrophil** cytoplasmic antibodies (**pANCA**) have been detected in a clin. distinct **Crohn**'s disease subpopulation. Antibodies to **Saccharomyces cerevisiae** (**ASCA**) have been demonstrated in the majority of patients with **Crohn**'s disease. To examine the relationship between selective marker antibody expression in **Crohn**'s disease and disease onset, location, and clin. behavior patterns. Sera from 156 consecutive patients with established **Crohn**'s disease were evaluated in a blinded fashion for the presence of **ASCA** and **ANCA**. Clin. profiles were generated by investigators blinded to immune marker status. Using multiple regression analyses, higher **ASCA** levels were shown to be independently assocd. with early age of disease onset as well as both fibrostenosing and internal penetrating disease behaviors. Higher **ANCA** levels were assocd. with later age of onset and ulcerative colitis-like behavior. Substratification of the **Crohn**'s disease population using selective **ANCA** and **ASCA** expression (high levels of a single marker antibody): (1) distinguished homogeneous subgroups that manifested similar disease location and behaviors; and (2) identified patients with more aggressive small bowel disease. The findings suggest that by taking into account the magnitude of the host immune response, **Crohn**'s disease can now be stratified on an immunol. basis into more homogeneous clin. distinct subgroups, characterized by greater uniformity among anatomical distribution of disease and disease behavior.
REFERENCE COUNT: 67
REFERENCE(S): (9) Darroch, C; Immunology 1994, V81, P247 HCAPLUS
(22) Hesresbach, D; Eur J Immunogenet 1996, V23, P141 HCAPLUS
(38) Quinton, J; Gut 1998, V42, P788 HCAPLUS
(50) Sendid, B; Clin Diagn Lab Immunol 1996, V3, P219 HCAPLUS
(53) Targan, S; J Immunol 1995, V155, P3262 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:574214 HCAPLUS
DOCUMENT NUMBER: 129:342510
TITLE: Anti-**Saccharomyces cerevisiae** mannan antibodies combined with **antineutrophil**

cytoplasmic autoantibodies in **inflammatory bowel disease**: prevalence and diagnostic role

AUTHOR(S): Quinton, J-F.; Sendid, B.; Reumaux, D.; Duthilleul, P.; Cortot, A.; Grandbastien, B.; Charrier, G.; Targan, S. R.; Colombel, J-F.; Poulain, D.

CORPORATE SOURCE: Service d'HepatoGastroenterologie, Hopital Huriez, Fr.

SOURCE: Gut (1998), 42(6), 788-791
CODEN: GUTTAK; ISSN: 0017-5749

PUBLISHER: BMJ Publishing Group

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Perinuclear **antineutrophil** cytoplasmic autoantibodies (**pANCA**) are a well recognized marker for ulcerative colitis. Antibodies to oligomannosidic epitopes of the yeast **Saccharomyces cerevisiae** (**ASCA**) are a new marker assocd. with **Crohn**'s disease. The aim of this study was to assess the value of detecting **pANCA** and/or **ASCA** for the diagnosis of ulcerative colitis and **Crohn**'s disease. Serum samples were obtained from 100 patients with **Crohn**'s disease, 101 patients with ulcerative colitis, 27 patients with other misc. diarrheal illnesses, and 163 healthy controls. Detn. of **pANCA** and **ASCA** was performed using the standardized indirect immunofluorescence technique and an ELISA, resp. The combination of a pos. **pANCA** test and a neg. **ASCA** test yielded a sensitivity, specificity, and pos. predictive value of 57%, 97%, and 92.5% resp. for ulcerative colitis. The combination of a pos. **ASCA** test and a neg. **pANCA** test yielded a sensitivity, specificity, and pos. predictive value of 49%, 97%, and 96% resp. for **Crohn**'s disease. Among patients with misc. non-inflammatory bowel disorders, three were **ASCA** pos. and two were **pANCA** pos. One control was **ASCA** pos. The presence of **ASCA** in patients with **Crohn**'s disease was assocd. with small bowel involvement. **ASCA** and **pANCA** are strongly assocd. with **Crohn**'s disease and ulcerative colitis, resp. Combination of both tests could help the diagnosis of **inflammatory bowel disease.**

L14 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1997:696935 HCAPLUS

DOCUMENT NUMBER: 127:292052

TITLE: Methods of diagnosing clinical subtypes of Crohn's disease

INVENTOR(S): Targan, Stephan; Vasiliauskas, Eric A.; Plevy, Scott E.; Barry, Mary J.

PATENT ASSIGNEE(S): Cedars-Sinai Medical Center, USA; Prometheus

SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9739356	A1	19971023	WO 1997-US6791	19970411

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN,

YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

US 5874233	A	19990223	US 1996-689870	19960815
AU 9729916	A1	19971107	AU 1997-29916	19970411
EP 906573	A1	19990407	EP 1997-924512	19970411

R: BE, DE, DK, FR, GB, IT, NL, SE, FI

PRIORITY APPLN. INFO.:	US 1996-630672	19960412
	US 1996-689870	19960815
	WO 1997-US6791	19970411

AB Provided herein is a method of diagnosing a clin. subtype of **Crohn**'s disease (CD) by detg. whether perinuclear anti-**neutrophil** antibody (**pANCA**) is present in a patient with CD, where the presence of **pANCA** indicates a clin. subtype of CD with features of ulcerative colitis (UC). The present also provides a method of diagnosing clin. subtypes of **Crohn**'s disease in a patient with CD by detg. whether **pANCA** or speckling anti-pan polymorphonuclear antibody (SAPPA) is present in the patient with CD, where the presence of **pANCA** indicates a clin. subtype of CD with features of ulcerative colitis and where the presence of SAPPA indicates a clin. subtype of CD having perforating, fistulizing or small bowel obstructive disease. The invention further provides a method of diagnosing clin. subtypes of **Crohn**'s disease in a patient with CD by detg. the presence or absence of **ANCA**, **pANCA** and SAPPA in the patient with CD and detg. the presence or absence of anti-**Saccharomyces cerevisiae** antibodies (**ASCA**) in the patient with CD, where the presence of **pANCA** combined with the absence of **ASCA** indicate a clin. subtype of CD with features of UC, the presence of SAPPA indicates a clin. subtype of CD having perforating or fistulizing disease or small bowel obstructive disease, and the presence of **ASCA** combined with the absence of **ANCA** indicates a clinical subtype of CD lacking features of ulcerative colitis and having perforating or fistulizing disease or small bowel obstructive disease. Kits for diagnosing clin. subtypes of **Crohn**'s disease, which contain **neutrophil** and antigen specific for **ASCA**, also are provided.

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=> d stat que l15
L1           27 SEA FILE=REGISTRY ABB=ON  PLU=ON  OMPC/BI
L2            4 SEA FILE=REGISTRY ABB=ON  PLU=ON  PANCA/BI
L5          145 SEA FILE=REGISTRY ABB=ON  PLU=ON  IGA/BI
L6        14704 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 OR IGA OR IMMUNOGLOBULIN(W)
                A
L7          574 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L1 OR OMPC OR OMP(W)C
L8           61 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L2 OR PANCA OR PERINUCLEAR(W)A
                NCA
L9          362 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTI(W)(L7 OR L8 OR SACCHAROMY
                CES OR CEREVISIAE OR (I2 OR I(W)2)(W)?PEPTIDE? OR NEUTROPHIL)
L10           9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L6 AND L9
L12         243 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (CROHN? OR INFLAMMATORY(W)BOWE
                L(W)DISEASE? OR IBD)(L)(L7 OR L8 OR (I2 OR I(W)2)(W)?PEPTIDE?
                OR NEUTROPHIL OR ANTINEUTROPHIL? OR ANCA OR ASCA)
L13           9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L12 AND (SACCHAROMYCES OR
                CEREVISIAE)
L14           7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13 NOT L10
L15           5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L6 AND L12) NOT (L10 OR L14)
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=> d ibib abs hitrn l15 1-5

L15 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:588480 HCAPLUS
DOCUMENT NUMBER: 134:146247
TITLE: **IgA** antineutrophil cytoplasmic antibodies in cutaneous vasculitis
AUTHOR(S): Rovel-Guitera, P.; Diemert, M-C.; Charuel, J-L.; Laporte, J-L.; Musset, L.; Chosidow, O.; Piette, J-C.; Frances, C.
CORPORATE SOURCE: Service de Medecine Interne, Hopital de la Pitie-Salpetriere, Paris, 75651, Fr.
SOURCE: Br. J. Dermatol. (2000), 143(1), 99-103
CODEN: BJDEAZ; ISSN: 0007-0963
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB **Antineutrophil** cytoplasmic antibodies (**ANCA**) of the **IgA** isotype have, for the most part, been detected in patients with Henoch-Schonlein purpura (HSP) or **inflammatory bowel disease**. The authors evaluated the prevalence of **IgA ANCA** in a series of patients with different causes of cutaneous vasculitis. Forty consecutive patients with histol. proven leukocytoclastic vasculitis were included in the study: 18 had systemic vasculitis as well as cutaneous lesions, 10 of whom were diagnosed as having HSP, and 22 had only cutaneous vasculitis (with no identified cause in 10 cases). **IgA ANCA** were sought by indirect immunofluorescence using ethanol-fixed human **neutrophil** prepns. as the substrate. **IgA ANCA** were detected in 6 of 40 patients (15%) (1 each with HSP, ulcerative colitis, Sjogren's syndrome, hypergammaglobulinemia assocd. with Castelman's disease, erythema elevatum diutinum, and bacterial endocarditis). Three of these patients also had IgG **ANCA** whose target antigen remained unidentified. Thus, **IgA ANCA** are rarely obsd. in HSP (10%) and can be detected in a wide variety of other cutaneous vasculitides.
REFERENCE COUNT: 27
REFERENCE(S): (2) Esteve, M; Am J Gastroenterol 1998, V93, P615 MEDLINE
(3) Falk, R; J Am Soc Nephrol 1997, V8, P314 MEDLINE
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ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:460750 HCAPLUS
DOCUMENT NUMBER: 134:85009
TITLE: Clinical associations and characterisation of antineutrophil cytoplasmic antibodies directed against bactericidal/permeability-increasing protein and azurocidin

AUTHOR(S): Cooper, T.; Savige, J.; Nassis, L.; Paspaliaris, B.; Neeson, P.; Neil, J.; Knight, K. R.; Daskalakis, M.; Doery, J. C. G.
CORPORATE SOURCE: Austin and Repatriation Medical Centre, University Department of Medicine and Department of Haematology, Heidelberg, 3084, Australia
SOURCE: Rheumatol. Int. (2000), 19(4), 129-136
CODEN: RHINDE; ISSN: 0172-8172
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Bactericidal/permeability-increasing protein (BPI) and azurocidin (AZ) are recently described target antigens of **antineutrophil** cytoplasmic antibodies (**ANCA**). In this study, BPI-**ANCA** were demonstrated most often in patients with ulcerative colitis (36/92, 39%), **Crohn**'s disease (17/66, 26%) and cystic fibrosis (11/14, 79%), but also in patients with rheumatoid arthritis (8/40, 20%), systemic lupus erythematosus (SLE) (111/65, 17%) and mixed connective tissue disease (4/18, 22%). BPI-**ANCA** were also common in sera contg. antinuclear (ANA) (9/43, 21%) or anti-double-stranded (ds) DNA (7/28, 25%) antibodies. There was no increased frequency of abnormal .alpha.1-antitrypsin (.alpha.1-AT) phenotypes in patients with BPI-**ANCA**, and BPI-**ANCA** were not more common in individuals with an abnormal phenotype. The predominant IgG subclasses were IgG1 and IgG3; **IgA** but not IgM was present. Both IgG and **IgA** BPI-**ANCA** were high affinity antibodies, and the affinity of IgG antibodies did not change with time in the sera tested. Four of the five sera (80%) contg. BPI-**ANCA** did not bind to denatured, reduced BPI, suggesting that most BPI-**ANCA** recognized conformational epitopes. AZ-**ANCA** were demonstrated in 2/11 patients (18%) with Wegener's granulomatosis, 3/12 (25%) with cystic fibrosis and 3/14 (21%) with chronic active hepatitis. AZ-**ANCA** were present in 5/25 sera (25%) with ANA, but the levels were only marginally elevated. AZ-**ANCA** were uncommon in patients with inflammatory bowel and rheumatol. diseases, and in sera contg. other autoantibodies. Again, there was no assocn. with abnormal .alpha.1-AT phenotypes. BPI represents a major **ANCA** target antigen in patients with rheumatol. as well as **inflammatory bowel disease** and cystic fibrosis, but AZ-**ANCA** are uncommon.

REFERENCE COUNT: 50
REFERENCE(S):
(1) Bini, P; J Immunol 1992, V149, P1409 HCAPLUS
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(5) Chang, L; Clin Exp Immunol 1995, V102, P112 HCAPLUS
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ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:768702 HCAPLUS
DOCUMENT NUMBER: 132:62849
TITLE: Identification of a novel mycobacterial histone H1 homologue (HupB) as an antigenic target of **pANCA** monoclonal antibody and serum **immunoglobulin A** from patients with **Crohn**'s disease
AUTHOR(S): Cohavy, Offer; Harth, Gunter; Horwitz, Marcus; Eggena,

Mark; Landers, Carol; Sutton, Christopher; Targan, Stephan R.; Braun, Jonathan
CORPORATE SOURCE: Department of Pathology and Laboratory Medicine, University of California, Los Angeles, CA, 90095, USA
SOURCE: Infect. Immun. (1999), 67(12), 6510-6517
CODEN: INFIBR; ISSN: 0019-9567
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB **PANCA** is a marker antibody assocd. with **inflammatory bowel disease** (**IBD**), including most patients with ulcerative colitis and a subset with **Crohn**'s disease. This study addressed the hypothesis that **pANCA** reacts with an antigen(s) of microbial agents potentially relevant to **IBD** pathogenesis. Using a **pANCA** monoclonal antibody, the authors have previously identified the C-terminal basic random-coil domain of histone H1 as a **pANCA** autoantigen. BLAST anal. of the peptide databases revealed H1 epitope homologs in open reading frames of the Mycobacterium tuberculosis genome. Western anal. of exts. from six mycobacterial species directly demonstrated reactivity to a single, conserved .apprx.32-kDa protein. Direct protein sequencing, followed by gene cloning, revealed a novel 214-amino-acid protein, an iron-regulated protein recently termed HupB. Sequence anal. demonstrated its homol. with the mammalian histone H1 gene family, and recombinant protein expression confirmed its reactivity with the 5-3 **pANCA** monoclonal antibody. Binding activity of patient serum IgG to HupB did not correlate with reactivity to histone H1 or **pANCA**, indicating the complex character of the **pANCA** antigen. However, anti-HupB **IgA** was strongly assocd. with **Crohn**'s disease. These findings indicate that the 5-3 **pANCA** monoclonal antibody detects a structural domain recurrent among mycobacteria and cross-reactive with a DNA-binding domain of histone H1. The assocn. of HupB-binding serum **IgA** with **IBD** provides new evidence for the assocn. of a mycobacterial species with **Crohn**'s disease.
REFERENCE COUNT: 70
REFERENCE(S):
(1) Abreu-Martin, M; Crit Rev Immunol 1996, V16, P277 HCAPLUS
(2) Allan, J; Nature 1980, V288, P675 HCAPLUS
(3) Altschul, S; J Mol Biol 1990, V215, P403 HCAPLUS
(4) Barbas, C; Proc Natl Acad Sci USA 1991, V88, P7978 HCAPLUS
(6) Brandwein, S; J Immunol 1997, V159, P44 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:413419 HCAPLUS
DOCUMENT NUMBER: 131:227315
TITLE: New insights into the immunopathology of human inflammatory bowel disease
AUTHOR(S): Brandtzaeg, P.; Haraldsen, G.; Helgeland, L.; Nilsen, E. M.; Rugtveit, J.
CORPORATE SOURCE: Laboratory for Immunohistochemistry and Immunopathology (LIIPAT), University of Oslo, the National Hospital, Oslo, Norway
SOURCE: Drugs Today (1999), 35(Suppl. A, Crossing Borders in IBD), 33-70
CODEN: MDACAP; ISSN: 0025-7656
PUBLISHER: Prous Science
DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review with 237 refs. Local prodn. of polymeric **IgA** and the resulting generation of secretory immunity, are disfavored in **inflammatory bowel disease** (**IBD**); this adverse development is accompanied by a strikingly increased IgG prodn. by local plasma cells in both ulcerative colitis and **Crohn** 's disease. Preferential (and apparently genetically detd.) overprodn. of the IgG1 subclass occurs in ulcerative colitis, and apical deposits of this isotype together with activated complement on the surface epithelium, are suggestive of a cytotoxic autoimmune attack directed against brush border antigen(s). In addn., the **IBD** lesions contain both recently recruited and locally activated T-cells as well as monocyte-like macrophages (CD14+) and **neutrophils** with elevated capacity for prodn. of proinflammatory cytokines (interleukin-1 and tumor necrosis factor-.alpha.) and reactive metabolites of oxygen and nitrogen. Together these cellular changes signify less restricted "gatekeeper" function of the microvascular endothelial cells. The local vascular bed is therefore central in the pathogenesis of **IBD**. Possible therapeutic blocking of the extravasation of selected inflammatory leukocyte subsets will require detailed knowledge of relevant adhesion mols. We have established primary monolayer cultures of human intestinal microvascular endothelial cells (HIMECs) to analyze the regulation of such mols. When subjected to proinflammatory cytokines, HIMECs show enhanced intercellular adhesion mol.-1 (ICAM-1) expression and induction of functional E-selectin and vascular cell adhesion mol.-1 (VCAM-1) as well as major histocompatibility complex (MHC) class II mols. with antigen-presenting and T-cell stimulatory properties. Furthermore, the activated endothelial cells express an array of cytokines and release rapidly prestored interleukin-8, a potent **neutrophil** chemoattractant. Collectively such mechanisms in vivo may contribute to derangement of mucosal homeostasis, as reflected by break of cellular and humoral immune tolerance against the indigenous microbial gut flora. In addn., the immunopathol. of **IBD** appears to include various autoimmune phenomena, particularly in ulcerative colitis. The origin of abrogated immune tolerance at the mucosal level may be alterations both in leukocyte extravasation and in antigen-presenting mechanisms induced by aberrant expression of endothelial and epithelial MHC class II mols., as well as a changed profile of costimulatory mols. on macrophages and lack of a putative immune-modulating properties of the epithelium. Perturbation of a tightly controlled cytokine network, with abnormal crosstalk between several mucosal cell types, may be the first step of a progressive immunopathol. development in **IBD**. Although the initiation of this series of immune events remains undefined, several potential targets for new **IBD** therapy can tentatively be identified to block undue cellular interactions.

REFERENCE COUNT: 237

REFERENCE(S):

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(4) Baggiolini, M; J Exp Med 1997, V186, P1189 HCAPLUS
(6) Bajaj-Elliott, M; J Clin Invest 1998, V102, P1473 HCAPLUS
(7) Beckett, C; Gut 1996, V39, P818 HCAPLUS
(8) Beeken, W; J Lab Clin Med 1995, V126, P358 HCAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1986:520660 HCAPLUS

DOCUMENT NUMBER: 105:120660

TITLE: Effect of liposomal-encapsulated superoxide dismutase

on active oxygen-related human disorders. A preliminary study
AUTHOR(S): Niwa, Yukie; Somiya, Kyoichi; Michelson, A. Michael; Puget, Krystyna
CORPORATE SOURCE: Dep. Intern. Med., Shimane Med. Univ., Japan
SOURCE: Free Radical Res. Commun. (1985), 1(2), 137-53
CODEN: FRRCEX; ISSN: 8755-0199
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Liposomal-encapsulated superoxide dismutase (SOD) [9054-89-1] was clin. applied to patients showing an increase in **neutrophil** active O generation, and those with diseases such as severe rheumatoid arthritis (RA), **Crohn**'s disease and progressive systemic sclerosis (PSS) in which presence of a plasmatic clastogenic factor has been demonstrated. Liposomal SOD injection (2.5 mg twice a week) resulted in marked remission in 12 of 16 patients with active Behcet's disease. The drug was effective on patients with intestinal Behcet. Remission rates in the other diseases was 7 of 8 mucocutaneous lymph node syndrome (MCLS, Kawasaki disease) 3 of 5 dermatitis herpetiformis, **IgA** linear bullous dermatosis or severe cement dermatitis, 4 of 9 active and severe RA, 3 of 3 PSS, 4 of 4 **Crohn**'s disease, 3 of 4 colitis ulcerosa, and 2 of 2 unresponsive (hemolytic) anemia. Three severe active RA patients and 2 terminal-stage PSS patients with dyspnea due to lung fibrosis showed dramatic improvement after administration of liposomal SOD. In 13 of 15 malignant neoplastic patients including cancer, malignant lymphoma who were receiving radiotherapy (total dose, >4000 rads) and chemotherapy including anthracycline analogs (total >450 mg/m2) and bleomycin, the drug also prevented the appearance of myocardiac injury and fibrosis, sometimes seen as a consequence of chemotherapy. Liposomal SOD, which shows no toxicity, has various advantages compared to free SOD prepns., and is highly and broadly applicable to various clin. disorders.

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=> d stat que l17
L1           27 SEA FILE=REGISTRY ABB=ON  PLU=ON  OMPC/BI
L2            4 SEA FILE=REGISTRY ABB=ON  PLU=ON  PANCA/BI
L5          145 SEA FILE=REGISTRY ABB=ON  PLU=ON  IGA/BI
L6        14704 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 OR IGA OR IMMUNOGLOBULIN(W)
                A
L7          574 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L1 OR OMPC OR OMP(W)C
L8           61 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L2 OR PANCA OR PERINUCLEAR(W)A
                NCA
L9          362 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTI(W)(L7 OR L8 OR SACCHAROMY
                CES OR CEREVISIAE OR (I2 OR I(W)2)(W)?PEPTIDE? OR NEUTROPHIL)
L10           9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L6 AND L9
L12         243 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (CROHN? OR INFLAMMATORY(W)BOWE
                L(W)DISEASE? OR IBD)(L)(L7 OR L8 OR (I2 OR I(W)2)(W)?PEPTIDE?
                OR NEUTROPHIL OR ANTINEUTROPHIL? OR ANCA OR ASCA)
L13           9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L12 AND (SACCHAROMYCES OR
                CEREVISIAE)
L14           7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13 NOT L10
L15           5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L6 AND L12) NOT (L10 OR L14)

L16          32 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PHOSPHOPEPTIDOMANNAN? OR
                PURIFIED(W)YEAST(W)CELL(W)WALL?
L17          30 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L16 NOT (L10 OR L14 OR L15)

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=> d ibib abs hitrn l17 1-30

L17 ANSWER 1 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:591128 HCAPLUS
TITLE: Peptides that mimic Candida albicans-derived .beta.-1,2-linked mannosides
AUTHOR(S): Jouault, Thierry; Fradin, Chantal; Dzierszinski, Florence; Borg-Von-Zepelin, Margareth; Tomavo, Stanislas; Corman, Robert; Trinel, Pierre-Andre; Kerckaert, Jean-Pierre; Poulain, Daniel
CORPORATE SOURCE: Laboratoire de Mycologie Fondamentale et Appliquee, INSERM EPI 9915, Faculte de Medecine, Universite de Lille II, Lille, 59037, Fr.
SOURCE: Glycobiology (2001), 11(8), 693-701
CODEN: GLYCE3; ISSN: 0959-6658
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB .beta.-1,2-linked mannosides from Candida albicans **phosphopeptidomannan** (PPM) bind to macrophages through a receptor independent from the macrophage .alpha.-linked mannose receptor and stimulate these cells to secrete immune mediators. Anti-.beta.-1,2-linked mannoside but not anti-.alpha.-linked mannoside antibodies produced after immunization with neoglycoproteins protect animals from disseminated candidiasis. In this study, peptides that mimic .beta.-1,2-linked mannosides were isolated using phage display methodol. A phage library expressing random peptides was panned with an anti-.beta.-1,2-linked mannoside monoclonal antibody (mAb). After three rounds of biopanning, the isolated phages were able to inhibit recognition of C. albicans by the mAb. Sixty percent of the phages had an identical DNA insert corresponding to the peptide sequence FHENWPS that was recognized specifically by the mAb. Injection of KLH-coupled peptide into mice generated high titers of polyclonal antibodies against C. albicans yeast cell walls. The anti-FHENWPS antibodies bound to C. albicans PPM and were inhibited by sol. .beta.-1,2-mannotetraose. Together, these data provide evidence for mimotopic activity of the peptide selected by biopanning with the anti-.beta.1,2-oligomannoside mAb.

L17 ANSWER 2 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:570837 HCAPLUS
TITLE: Cloning and expression of a yeast cell wall hydrolase gene (ycl) from alkalophilic Bacillus alcalophilus subsp. YB380
AUTHOR(S): Ohk, Seung-Ho; Yeo, Ik-Hyun; Yu, Yun-Jung; Kim, Byong-Ki; Bai, Dong-Hoon
CORPORATE SOURCE: Department of Food Engineering, Dankook University, Chungnam, 330-714, S. Korea
SOURCE: J. Microbiol. Biotechnol. (2001), 11(3), 508-514
CODEN: JOMBES; ISSN: 1017-7825
PUBLISHER: Korean Society for Applied Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A structural gene (ycl) encoding novel yeast cell wall hydrolase, YCL, was cloned from alkalophilic Bacillus alcalophilus subsp. YB380 by PCR, and transformed into E. coli JM83. Based on the N-terminal and internal amino acid sequences of the enzyme, primers were designed for PCR. The pos.

clone that harbors 1.8 kb of the yeast cell wall hydrolase gene was selected by the colony hybridization method with a PCR fragment as a probe. According to the computer anal., this gene contained a 400-base-paired N-terminal domain of the enzyme. Based on nucleotide homol. of the cloned gene, a 850 bp fragment was amplified and the C-terminal domain of the enzyme was sequenced. With a combination of the two sequences, a full nucleotide sequence for YCL was obtained. This gene, ycl, consisted of 1,297 nucleotides with 27 amino acids of signal sequence, 83 redundant amino acids of pro-sequence, and 265 amino acids of the mature protein. This gene was then cloned into the pJH27 shuttle vector and transformed into the Bacillus subtilis DB104 to express the enzyme. It was confirmed that the expressed cell wall hydrolase that was produced by Bacillus subtilis DB104 was the same as that of the donor strain, by Western blot using polyclonal antibody (IgY) prepd. from White Leghorn hen. **Purified yeast cell wall** hydrolase and expressed recombinant protein showed a single band at the same position in the Western blot anal.

L17 ANSWER 3 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:23285 HCAPLUS
DOCUMENT NUMBER: 134:277959
TITLE: Profiling changes in metabolism of isoflavonoids and their conjugates in Lupinus albus treated with biotic elicitor
AUTHOR(S): Bednarek, P.; Franski, R.; Kerhoas, L.; Einhorn, J.; Wojtaszek, P.; Stobiecki, M.
CORPORATE SOURCE: Institute of Bioorganic Chemistry, Polish Academy of Sciences, Poznan, 61-704, Pol.
SOURCE: Phytochemistry (2001), 56(1), 77-85
CODEN: PYTCAS; ISSN: 0031-9422
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Liq. chromatog. with UV and mass spectrometric detection was applied to monitor changes in profiles of isoflavonoid glycosides and free isoflavonoid aglycons in Lupinus albus L. Four isoflavonoid aglycons, fourteen isoflavonoid glycosides, four flavonol glycosides and flavone glycoside were identified in lupin tissue after LC/ESI/MS analyses. An elicitor prepn. from **purified yeast cell wall** was used to inject the shoots of 3-wk old seedlings or to infiltrate the cut lupin leaves. Qual. and quant. changes of isoflavonoids were measured at different time points after elicitation. In elicited lupin seedlings increased amts. of prenylated isoflavone aglycons were identified. The concns. of glycosidic conjugates of isoflavones present in plant tissue were less affected.
REFERENCE COUNT: 35
REFERENCE(S): (1) Dakora, F; Physiol Mol Plant Pathol 1996, V49, P1 HCAPLUS
(2) Dixon, R; Biol Rev 1986, V61, P239 HCAPLUS
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(5) Fry, S; Plant Cell Biology -- Practical Approach 1994, P199 HCAPLUS
(6) Gagnon, H; Phytochemistry 1997, V44, P1463 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 4 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:785066 HCAPLUS
DOCUMENT NUMBER: 132:119700

TITLE: Mitochondrial function in cell wall glycoprotein synthesis in Saccharomyces cerevisiae NCYC 625 (wild type) and [rho0] mutants
AUTHOR(S): Iung, Annie Rakotoarivony; Coulon, Joel; Kiss, Ferenc; Ekome, Jacques Ngondi; Vallner, Judit; Bonaly, Roger
CORPORATE SOURCE: Faculte de Pharmacie-UMR UHP-CNRS 7564-LCPE Biochimie Microbienne, Universite Henri Poincare, Nancy 1, Nancy, 54001, Fr.
SOURCE: Appl. Environ. Microbiol. (1999), 65(12), 5398-5402
CODEN: AEMIDF; ISSN: 0099-2240
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The authors studied **phosphopeptidomannans** (PPMs) of two Saccharomyces cerevisiae NCYC 625 strains (S. diastaticus): a wild type strain grown aerobically, anaerobically, and in the presence of antimycin and a [rho0] mutant grown aerobically and anaerobically. The aerobic wild-type cultures were highly flocculent, but all others were weakly flocculent. Ligands implicated in flocculation of mutants or antimycin-treated cells were not aggregated as much by Con A as were those of the wild type. The [rho0] mutants and antimycin-treated cells differ from the wild type in PPM compn. and invertase, acid phosphatase, and glucoamylase activities. PPMs extd. from different cells differ in the protein but not in the glycosidic moiety. The PPMs were less stable in mitochondrion-deficient cells than in wild-type cells grown aerobically, and this difference may be attributable to defective mitochondrial function during cell wall synthesis. The reduced flocculation of cells grown in the presence of antimycin, under anaerobiosis, or carrying a [rho0] mutation may be the consequence of alterations of PPM structures which are the ligands of lectins, both involved in this cell-cell recognition phenomenon. These respiratory chain alterations also affect peripheral, biol. active glycoproteins such as extracellular enzymes and peripheral PPMs.

REFERENCE COUNT: 37
REFERENCE(S):
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(5) Drubin, D; Mol Biol Cell 1993, V4, P1277 HCAPLUS
(6) Dubois, M; Anal Chem 1956, V28, P350 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 5 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:700533 HCAPLUS
DOCUMENT NUMBER: 132:10604
TITLE: The Candida albicans phospholipomannan is a family of glycolipids presenting phosphoinositolmannosides with long linear chains of .beta.-1,2-linked mannose residues
AUTHOR(S): Trinel, Pierre-Andre; Plancke, Yves; Gerold, Peter; Jouault, Thierry; Delplace, Florence; Schwarz, Ralph T.; Strecker, Gerard; Poulain, Daniel
CORPORATE SOURCE: Equipe Mixte de l'INSERM 99-15, Laboratoire de Mycologie Fondamentale et Appliquee, Faculte de Medecine, Centre Hospitalier Universitaire, Lille, 59045, Fr.
SOURCE: J. Biol. Chem. (1999), 274(43), 30520-30526
CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In a series of studies, we have shown that Candida albicans synthesizes a glycolipid, phospholipomannan (PLM), which reacted with antibodies specific for .beta.-1,2-oligomannosides and was biosynthetically labeled by [3H]mannose, [3H]palmitic acid, and [32P]phosphorus. PLM has also been shown to be released from the C. albicans cell wall and to bind to and stimulate macrophage cells. In this study, we show by thin layer chromatog. scanning of metabolically radiolabeled exts. that the C. albicans PLM corresponds to a family of mannose and inositol co-labeled glycolipids. We describe the purifn. process of the mol. and the release of its glycan fraction through alk. hydrolysis. Anal. of this glycan fraction by radiolabeling and methylation-methanolysis confirmed the presence of inositol and of 1,2-linked mannose units. NMR studies evidenced linear chains of .beta.-1,2-oligomannose as the major PLM components. Mass spectrometry anal. revealed that these chains were present in phosphoinositolmannosides with ds.p. varying from 8 to 18 sugar residues. The PLM appears as a new type of eukaryotic inositol-tagged glycolipid in relationship to both the absence of glucosamine and the organization of its glycan chains. This first structural evidence for the presence of .beta.-1,2-oligomannosides in a glycoconjugate other than the C. albicans **phosphopeptidomannan** may have some pathophysiol. relevance to the adhesive, protective epitope, and signaling properties thus far established for these residues.
REFERENCE COUNT: 40
REFERENCE(S): (1) Barnes, P; J Immunol 1992, V149, P541 HCAPLUS
(2) Caesar-TonThat, T; Infect Immun 1997, V65, P5354 HCAPLUS
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ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 6 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:48002 HCAPLUS
DOCUMENT NUMBER: 128:124303
TITLE: New species of Fellomyces isolated from epiphytic lichen species
AUTHOR(S): Prillinger, Hansjoerg; Kraepelin, Gunda; Lopandic, Ksenija; Schweigkofler, Wolfgang; Molnar, Orsolya; Weigang, Franz; Dreyfuss, Mike M.
CORPORATE SOURCE: Institut Angewandte Mikrobiologie, Universitaet Bodenkultur, Vienna, A-1190, Austria
SOURCE: Syst. Appl. Microbiol. (1997), 20(4), 572-584
CODEN: SAMIDF; ISSN: 0723-2020
PUBLISHER: Gustav Fischer Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Five new species of Fellomyces, F. borneensis, F. chinensis, F. lichenicola, F. sichuanensis, and F. thailandicus isolated from lichens growing on tree barks are described. Species delimitation was performed using RAPD-PCR and partial sequencing of ribosomal DNA. A fragment of 385 nucleotides, corresponding to the gene position 547 through 931 of the 18S rDNA in Saccharomyces cerevisiae was used. Based on phylogenetic data it was not possible to sep. the ballistosporous genus Kockovaella from the

sterigma forming genus Fellomyces. Species reproduce by enteroblastic budding or by forming one or more conidia on sterigmata per cell. Sterigmatoconidia are delivered by an end break in distal position of the sterigmata. Ubiquinone Q-10 is the major ubiquinone component in all species. The presence of xylose in **purified yeast cell walls** was characteristic for all strains investigated. It was not possible to sep. the 5 different Fellomyces species by phenotypic criteria of the physiol. std. characterization only.

L17 ANSWER 7 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:712350 HCAPLUS
DOCUMENT NUMBER: 128:11696
TITLE: Definitive chemical evidence for the constitutive ability of Candida albicans serotype A strains to synthesize .beta.-1,2 linked oligomannosides containing up to 14 mannose residues
AUTHOR(S): Trinel, P. A.; Lepage, G.; Jouault, T.; Strecker, G.; Poulain, D.
CORPORATE SOURCE: Unite 42, Inst. National Sante Recherche Medicale, Villeneuve d'Ascq, 59651, Fr.
SOURCE: FEBS Lett. (1997), 416(2), 203-206
CODEN: FEBLAL; ISSN: 0014-5793
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We have previously reported the presence of phosphate bound .beta.-1,2 linked oligomannosides with unusually high degrees of polymn. (DP > 7) in the mannan of Candida albicans strain VW32. To confirm this observation, we have prepd. these oligomannosides from the mannan of C. albicans strain NIH A 207. Gel filtration chromatog. and TLC anal. revealed DP up to 14. For both strains, NMR anal. confirmed the exclusive presence of .beta.-1,2 linkages in the pools of oligomannosides with a DP higher than 6 which presented an av. DP of 10.6 (VW32) and 10.4 (NIH A 207). These results are important to consider in relation with the ability of these C. albicans derived oligomannosides to trigger TNF.alpha. synthesis according to their DP.

L17 ANSWER 8 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:156373 HCAPLUS
DOCUMENT NUMBER: 126:274874
TITLE: Differential secretion and accumulation of isoflavonoids in Lupinus albus in response to fungal elicitor and CuCl2
AUTHOR(S): Wojtaszek, Przemyslaw; Stobiecki, Maciej
CORPORATE SOURCE: Inst. Bioorganic Chem., Polish Acad. Scis., Poznan, 61-704, Pol.
SOURCE: Plant Physiol. Biochem. (Paris) (1997), 35(2), 129-135
CODEN: PPBIEX; ISSN: 0981-9428
PUBLISHER: Gauthier-Villars
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The prepn. and characterization of the fungal elicitor active fraction from **purified yeast cell walls** is reported. This elicitor fraction and CuCl2 were used in the cut cotyledon assay to study the secretion and accumulation of isoflavonoids in Lupinus albus plants in response to elicitation. Four isoflavonoid aglycons (2'-hydroxygenistein, genistein, luteone, lupinalbin A) were identified in diffusates and in the cotyledon tissues. 2'-Hydroxygenistein, present also in healthy plants, was identified as a major isoflavone induced by

elicitation either with the yeast elicitor or CuCl2. The levels of all other free aglycons and glycosidic conjugates, were increased in response to elicitation. However, their distribution was different as up to 50% of all free aglycons found were secreted in response to yeast elicitor, while less than 1% was secreted upon CuCl2 treatment. Addnl., the browning of tissues was noted in cotyledons treated with the yeast elicitor but not with copper chloride, indicating that the isoflavone prodn. and browning of tissue are not correlated, and suggesting the existence of the regulatory mechanisms discriminating between various types of elicitors. Thus, it is proposed that in L. albus simple isoflavones - and not pterocarpans - are major stress metabolites, possibly fulfilling the role of lupine phytoalexins.

L17 ANSWER 9 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1996:451266 HCAPLUS
DOCUMENT NUMBER: 125:112576
TITLE: .beta.-1,2-Linked oligomannosides inhibit Candida albicans binding to murine macrophage
AUTHOR(S): Fradin, Chantal; Jouault, Thierry; Mallet, Astrid; Mallet, Jean-Maurice; Camus, Daniel; Sinay, Pierre; Poulain, Daniel
CORPORATE SOURCE: Departament de Chimie, URA-CNRS, Paris, Fr.
SOURCE: J. Leukocyte Biol. (1996), 60(1), 81-87
CODEN: JLBIE7; ISSN: 0741-5400
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Interaction of Candida albicans with cells of the macrophage lineage was examd. by using heat-killed (HK) and live yeast cells. Laminarin, an analog of the cell wall .beta.-glucans, strongly inhibited HK yeasts adherence to J774 cell line but had no effect on live yeast binding. **Phosphopeptidomannan** (PPM) from Saccharomyces cerevisiae had a limited effect on the binding of both HK and live yeasts but significant inhibition was achieved by the use of C. albicans PPM. The role of .beta.-1,2-oligomannosides was examd. with regard to their exclusive presence within C. albicans PPM. PPM acid labile .beta.-1,2-oligomannosides or a synthetic .beta.-1,2-mannotetraose, inhibited yeasts binding in a manner comparable to the original PPM. These latter results were confirmed by using mouse peritoneal macrophages, thus suggesting a general role for .beta.-1,2-oligomannosides in the adherence of the yeast to the macrophage membrane.

L17 ANSWER 10 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1996:232186 HCAPLUS
DOCUMENT NUMBER: 124:286805
TITLE: Specific antibody response to oligomannosidic epitopes in Crohn's disease
AUTHOR(S): Sendid, B.; Colombel, J. F.; Jacquinot, P. M.; Faille, C.; Fruit, J.; Cortot, A.; Lucidarme, D.; Camus, D.; Poulain, D.
CORPORATE SOURCE: Laboratoire de Parasitologie-Mycologie, Hopital Huriez, Fr.
SOURCE: Clin. Diagn. Lab. Immunol. (1996), 3(2), 219-26
CODEN: CDIMEN; ISSN: 1071-412X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Elevated antibody levels against the yeast Saccharomyces cerevisiae have been reported in sera from patients with Crohn's disease and not with ulcerative colitis. The aim of the study was to identify the nature of the epitopes supporting this antibody response. Whole cells from

different S. cerevisiae strains were selected in immunofluorescence assay for their ability to differentiate the antibody responses of patients with Crohn's disease and ulcerative colitis. Their cell wall **phosphopeptidomannans** were then tested as antigen in ELISA against sera from 42 patients with Crohn's disease, 20 patients with ulcerative colitis, and 34 healthy controls. Graded chem. degrdns. were performed on the most reactive strain **phosphopeptidomannan**. The discriminating epitope was detd. through gas-liq. chromatog.-mass spectrometry. The greatest discrimination among patients with Crohn's disease, ulcerative colitis, and controls was obtained with Sul, a S. cerevisiae strain used in brewing of beer. ELISA directed against **phosphopeptidomannan** of this strain was 64% sensitive and 77% specific for discriminating Crohn's disease vs. ulcerative colitis and 71% sensitive and 89% specific for Crohn's disease vs. controls. Periodate oxidn. and selective degrdn. demonstrated that the most important polysaccharide epitope was shared by both the acid-stable and the alkali-labile domains of the **phosphopeptidomannan**. The detn. of oligomannose sequences of S. cerevisiae Sul **phosphopeptidomannans** suggested that a mannotetraose, Man(1.fwdarw.3)Man(1.fwdarw.2)Man(1.fwdarw .2)Man, supported the serol. response seen in Crohn's disease. Further identification of the immunogen eliciting this antibody response as a marker of the disease may help to understand its etiol.

L17 ANSWER 11 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1996:27781 HCAPLUS
DOCUMENT NUMBER: 124:81655
TITLE: Structure of the **phosphopeptidomannans** from flocculent and non-flocculent yeast Kluyveromyces lactis
AUTHOR(S): Bilang, Mariyati; Attioui, Fatima; Loppinet, Vincent; Michalski, Jean-Claude; Bonaly, Roger
CORPORATE SOURCE: Faculte Sciences Pharmaceutiques Biologiques, Universite Henri Poincare, Nancy I, Nancy, 54001, Fr.
SOURCE: Carbohydr. Res. (1996), 280(2), 303-13
CODEN: CRBRAT; ISSN: 0008-6215
DOCUMENT TYPE: Journal
LANGUAGE: English
AB After extn. from whole cells and purifn. by gel filtration, the chem. compn. and mol. mass estn. of the cell-wall **phosphopeptidomannan** (PPM) showed no significant difference between flocculent weakly, very weakly and non-flocculent Kluyveromyces lactis strains. However, when PPMs were tested as ligands of a lectin extd. from the flocculent strain, the PPM isolated from the flocculent and weakly flocculent strains were recognized to a higher degree than those isolated from the non and very weakly flocculent strains. Acetolysis of PPM extd. from the four strains produced five oligosaccharide fractions corresponding to mono-, di-, tri-, penta- and hexasaccharides. The flocculent strain was characterized by a high content of di- and pentasaccharides. The 1H NMR anal. of the oligosaccharides demonstrated that the flocculent strain contained equiv. levels of the two mannobioses: Man(.alpha.1 .fwdarw. 2)Man and Man(.alpha.1 .fwdarw. 3)Man and of the two mannotrioses Man(.alpha.1 .fwdarw. 2)Man(.alpha.1 .fwdarw. 2)Man and Man(.alpha.1 .fwdarw. 3)Man(.alpha.1 .fwdarw. 2)Man. In contrast, the non-flocculent and the very weakly flocculent strains contained a single type of mannobiose Man(.alpha.1 .fwdarw. 2)Man and one type of mannotriose Man(.alpha.1 .fwdarw. 2)Man(.alpha.1 .fwdarw. 2)Man.

L17 ANSWER 12 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1995:677045 HCAPLUS

DOCUMENT NUMBER: 123:79156
TITLE: Structural differences of peptidomannans of the parietal layer of two strains of Kluyveromyces lactis, flocculating and nonflocculating
AUTHOR(S): Bellal, M.; Benallaoua, S.; Elfoul, L.; Bonaly, R.
CORPORATE SOURCE: Lab. biochim. microbienne, Fac. pharmacie, Nancy, 54 001, Fr.
SOURCE: Can. J. Microbiol. (1995), 41(4 & 5), 323-35
CODEN: CJMIAZ; ISSN: 0008-4166
DOCUMENT TYPE: Journal
LANGUAGE: French

AB Two strains, flocculating and nonflocculating, of the yeast Kluyveromyces lactis were grown in a Sabouraud's liq. medium contg. 0.07 mM Ca. Treatment by ethylenediamine of isolated cell walls yielded three fractions: A, B, and C. Fraction A, sol. in ethylenediamine, contained **phosphopeptidomannan**-like hydrosol. polymers; these constituted the external wall of the parietal layer. **Phosphopeptidomannans** have also been extd. from entire yeast cells autoclaved at 140.degree.C in a citrate buffer at pH 7.0. The flocculating and nonflocculating states of yeasts showed structural and quant. variations in **phosphopeptidomannans**. The walls of the flocculating yeast cells contained higher amts. of peripheral polymers, the mol. masses of which were greater than those of nonflocculating yeast cells. These are the result of a more complex structure, due to the presence of a greater no. of ramifications contg. three or four mannose units. Anal. of the acetolysis products revealed in fact the release essentially of phosphorylated mannotriose and mannotetraose units by the flocculating yeast **phosphopeptidomannans**, while polymers of the nonflocculating yeast were characterized by the presence of mannobiose units. When such polymers were submitted to a .beta.-elimination reaction, mannobiose and mannose units were liberated in such a ratio that mannobiose units appeared to be more numerous in flocculating yeast cells. A lectin extd. from the flocculating strain was incubated with erythrocytes activated by **phosphopeptidomannans** derived from flocculating and nonflocculating yeasts and showed clearly that the more agglutinated erythrocytes were those activated by polymers derived from the flocculating yeast. The C fraction, insol. in ethylenediamine, corresponded to the wall rigid matrix. The study of its chem. compn. revealed no significative difference between the flocculating and the nonflocculating strains.

L17 ANSWER 13 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1995:594702 HCAPLUS
DOCUMENT NUMBER: 123:29114
TITLE: Influence of aeration and [rho0] mutation on the structure of the cell walls of Saccharomyces cerevisiae and S. diastaticus
AUTHOR(S): Zaamoun, S.; Thi, X. Tran; Reisinger, O.; Guiraud, J. P.; Fontana, A.; Bonaly, R.
CORPORATE SOURCE: Faculte des Sciences Pharmaceutiques et Biologiques, Universite Henri Poincare, Nancy I, Nancy, 54001, Fr.
SOURCE: Mycol. Res. (1995), 99(4), 492-500
CODEN: MYCRER; ISSN: 0953-7562
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The structure of the cell walls of Saccharomyces cerevisiae and S. diastaticus wild strains and mutants [rho0] was studied after growth of the cells in aerobiosis and without aeration. Transmission electron microscopy observations of the walls showed that in respiratory-deficient

cells the external region, corresponding to the **phosphopeptidomannan** layer, was altered, while the inner zone corresponding to the wall matrix was less damaged. Chem. anal. of the purified walls as well as of pronase extd. heteropolyosides revealed in the mutants [rho0] and in the cells grown without aeration, but to lesser extent, an enhanced synthesis of **phosphopeptidomannans**. These polymers were, however, less phosphorylated and their apparent mol. mass was lower than those of **phosphopeptidomannans** extd. from wild strains grown under aerobiosis. The chem. anal. of the wall and of wall residues provides results consistent with the transmission electron micrographs. It is suggested that in respiratory deficient cells, there is a lack of a mitochondrial function which controls the synthesis of the wall **phosphopeptidomannans**.

L17 ANSWER 14 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1995:593640 HCAPLUS
DOCUMENT NUMBER: 123:7752
TITLE: .beta.-1,2-Linked oligomannosides from Candida albicans act as signals for tumor necrosis factor .alpha. production
AUTHOR(S): Jouault, Thierry; Lepage, Gilbert; Bernigaud, Annie; Trinel, Pierre-Andre; Fradin, Chantal; Wieruszeski, Jean-Michel; Strecker, Gerard; Poulain, Daniel
CORPORATE SOURCE: Unit 42, Institut National de la Sante et de la Recherche Medicale, Villeneuve d Ascq, 59650, Fr.
SOURCE: Infect. Immun. (1995), 63(6), 2378-81
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Different cell wall components from C. albicans have been shown to stimulate murine macrophages for tumor necrosis factor alpha (TNF-.alpha.) secretion. All of these mols. contain .beta.-1,2-oligomannosides. To examine their role in TNF-.alpha. prodn., acid-labile oligosaccharides, released from C. albicans VW32 cell wall **phosphopeptidomannan** by mild acid hydrolysis, and previously shown to correspond to homopolymers of .beta.-1,2-linked mannopyranosyl units, were sepd. by gel filtration chromatog. according to their d.p. Murine macrophages incubated with purified oligomannosides (M2 to M8) released TNF-.alpha. to an extent which was dependent on, although not directly correlated with, the length of the mannosyl chain. Slight activity was obsd. with M4 and M5; M6 and M7 had virtually no effect, whereas M8 was assocd. with strong TNF-.alpha. release. This effect of M8 was dose dependent and was not altered by polymyxin B, known to interfere with lipopolysaccharide-induced TNF-.alpha. prodn. Thus, stimulation of TNF-.alpha. release by C. albicans glycoconjugates contg. .beta.-1,2-linked oligomannosides may be due, at least in part, to the presence of these components.

L17 ANSWER 15 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1995:214420 HCAPLUS
DOCUMENT NUMBER: 122:235105
TITLE: Molecular characterization and application of random amplified polymorphic DNA analysis of Mrakia and Sterigmatomyces species
AUTHOR(S): Messner, Robert; Prillinger, Hansjoerg; Altmann, Friedrich; Lopandic, Ksenija; Wimmer, Katharina; Molnar, Orsolya; Weigang, Franz
CORPORATE SOURCE: Institut Angewandte Mikrobiologie, Universitaet Bodenkultur, Vienna, A-1190, Austria
SOURCE: Int. J. Syst. Bacteriol. (1994), 44(4), 694-703

CODEN: IJSBA8; ISSN: 0020-7713
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The qual. and quant. monosaccharide spectra of **purified yeast cell walls** revealed that there are three phylogenetically distinct lineages of sterigma-forming basidiomycetous yeasts: (i) Kurtzmanomyces and Sterigmatomyces species, which contain high levels of mannose; (ii) Tilletiopsis species, which contain glucose, galactose, and small amts. of mannose; and (iii) Fellomyces, Kockovaella, Sterigmatosporidium, and Tsuchiyaea species, which appear to be closely related on the basis of their high levels of glucose and the presence of xylose. The yeast cell wall neutral sugars of Sporobolomyces antarcticus and Sterigmatomyces aphidis were similar to those of members of the genus Tilletiopsis. However, the possibility that these taxa are conspecific was eliminated by the results of a random amplified polymorphic DNA (RAPD) anal. The conspecificity of Mrakia frigida and Mrakia nivalis, the conspecificity of Mrakia gelida and Mrakia stokesii, and the conspecificity of Sterigmatomyces halophilus and Sterigmatomyces indicus were confirmed by RAPD anal. results. RAPD anal. was found to be a simple and highly sensitive method which can be used to differentiate species at the DNA level; it can replace nuclear DNA-nuclear DNA hybridization expts. for species identification, characterization, and delimitation.

L17 ANSWER 16 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1993:444864 HCAPLUS
DOCUMENT NUMBER: 119:44864
TITLE: Analysis of cell wall carbohydrates (neutral sugars) from ascomycetous and basidiomycetous yeasts with and without derivatization
AUTHOR(S): Prillinger, Hansjoerg; Oberwinkler, Franz; Umile, Claudio; Tlachac, Klaudia; Bauer, Robert; Doerfler, Christine; Taufratzhofer, Eduard
CORPORATE SOURCE: Inst. Angew. Mikrobiol., Univ. Bodenkult., Vienna, A-1190, Austria
SOURCE: J. Gen. Appl. Microbiol. (1993), 39(1), 1-34
CODEN: JGAMA9; ISSN: 0022-1260
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The presence or absence of fucose, galactose, rhamnose, and xylose as well as the ratio of glucose to mannose after hydrolysis of **purified yeast cell walls** are valuable characters to assign yeasts or yeast states of Ascomycetes and Basidiomycetes phylogenetically. The coupling of pellicular anion-exchange resins (Dionex CarboPac PA-1) with pulsed amperometric detection provides a simple, quick, selective, and sensitive method for the anal. of yeast cell wall carbohydrates. Phragmobasidial smut fungi of monocotyledonous (Ustilago s. str., Sporisorium) and dicotyledonous (Microbotyrum, Sphacelotheca) host plants cluster in two different, phylogenetically distinct yeast types, the Microbotryum type and the Ustilago type. In contrast all smut fungi with simple holobasidia (Entyloma, Melanotaenium) from monocots and dicots investigated so far, exhibit a cell wall carbohydrate spectrum characteristic for the Ustilago type. Ustilentyloma fluitans, although a phragmobasidial smut fungus on grasses, whose smut pores and parasitic symptoms resemble Entyloma species, display the neutral sugar pattern of the Microbotryum type. The close phylogenetic relationship between the Graphiolales, Ustilaginales s. str. (phragmobasidial smuts of monocots), and Exobasidiales was substantiated further by addnl. strains. The presence of xylose and balanced amts. of glucose and mannose is characteristic for yeast states of the

Dacrymycetaceae. The prodn. of extracellular amyloid compds. (EAC) as well as the cell wall carbohydrate pattern point to a Tremella type affinity of Atractogloea stillata, Itersonilia perplexans, and Sterigmatosporidium polymorphum. A meiosporangial evolution starting from coccal yeast basidia (Sterigmatosporidium) via transversely (auricularioid) septate (Atractogloea) to longitudinally divided phragmobasidia (Tremella) and simple holobasidia (Cystofilobasidium) was substantiated further within the Tremella type. The complex holobasidia (Collybia) of the Homobasidiomycetes evolved polyphyletically from longitudinally septate phragmobasidia via partially divided holobasidia (Carcinomyces). On the basis of the cell wall carbohydrate compn. of approx. 250 yeasts and yeast stages of Ascomycetes and Basidiomycetes, seven distinct yeast types are described and interpreted phylogenetically.

L17 ANSWER 17 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1993:97667 HCAPLUS
DOCUMENT NUMBER: 118:97667
TITLE: Complete proton and carbon-13 resonance assignments for D-mannooligosaccharides of the .beta.-D-(1.fwdarw.2)-linked series released from the **phosphopeptidomannan** of Candida albicans VW.32 (serotype A)
AUTHOR(S): Faille, Christine; Wieruszeski, Jean Michel; Michalski, Jean Claude; Poulain, Daniel; Strecker, Gerard
CORPORATE SOURCE: Inst. Natl. Sante Rech. Med., Villeneuve d'Ascq, F-59650, Fr.
SOURCE: Carbohydr. Res. (1992), 236, 17-27
CODEN: CRBRAT; ISSN: 0008-6215
DOCUMENT TYPE: Journal
LANGUAGE: English
AB D-Mannooligosaccharides (dp 1 to > 17) were released by mild acid hydrolysis from the **phosphopeptidomannan** of a C. albicans strain of A serotype (VW.32). Among these, mannooligosaccharides ranging from bi- to hepta-ose, which were obtained in appreciable amts., were structurally investigated and found to belong to the .beta.-D-(1.fwdarw.2)-linked series. The occurrence of such compds. has already been reported in other C. albicans strains. The complete 1H- and 13C-resonance assignments for manno-tri- to manno-hepta-ose are reported and general rules applicable for the 1NMR spectrum spectrum anal. of linear mannooligosaccharide of the general structure .beta.-D-Manp-(1.fwdarw.2)-[.beta.-D-Manp-(1.fwdarw.2)]n-.beta.-D-Manp are proposed.

L17 ANSWER 18 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1992:589822 HCAPLUS
DOCUMENT NUMBER: 117:189822
TITLE: Mapping of Candida albicans oligomannosidic epitopes by using monoclonal antibodies
AUTHOR(S): Trinel, Pierre Andre; Faille, Christine; Jacquinot, Pierre Marie; Cailliez, Jean Charles; Poulain, Daniel
CORPORATE SOURCE: Inst. Natl. Sante Rech. Med., Villeneuve d'Ascq, 59650, Fr.
SOURCE: Infect. Immun. (1992), 60(9), 3845-51
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Six monoclonal antibodies (MAbs) from various lab. sources (EB-CA1, EB-CA2, H5, AF1, C6, and 5B2), reacting with the polysaccharidic moieties of C. albicans mannoproteins, were used for epitope mapping by an ELISA

with neoglycolipids and by Western blotting (immunoblotting) of a C. albicans germ tube ext. The ELISA involved neoglycolipids constructed from 3 families of oligomannosides released by sequential depolymn. of C. albicans **phosphopeptidomannan** by acid hydrolysis (NGLH), .beta.-elimination (NGLO), and acetolysis (NGLA). All of the MAbs exhibited low reactivities against NGLO. MAbs EB-CA1, EB-CA2, and H5 reacted mainly against NGLA, and MAbs C6 and AF1 recognized mainly NGLH, whereas MAb 5B2 reacted with both families of neoantigens. When this method was compared with Western blotting, strong reactivity to NGLA was assocd. with the presence of epitopes reactivity to a family of 14-18-kDa antigens. The reactivity of MAb 5B2 was assocd. with both high-mol.-wt. mannoproteins and the 14-18-kDa antigens. In relation to the present knowledge about the structure of the C. albicans **phosphopeptidomannan** oligomannoside repertoire, these results provide preliminary data concerning the mol. basis of the recognition of mannopyranosyl sequences by MAbs and their distribution among C. albicans mannoproteins.

L17 ANSWER 19 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1992:569055 HCAPLUS
DOCUMENT NUMBER: 117:169055
TITLE: Evaluation of an enzyme immunoassay using neoglycolipids constructed from Candida albicans oligomannosides to define the specificity of anti-mannan antibodies
AUTHOR(S): Faille, C.; Mackenzie, D. W. R.; Michalski, J. C.; Poulain, D.
CORPORATE SOURCE: Inst. Natl. Sante Rech. Med., CERTIA, Villeneuve d'Ascq, 59650, Fr.
SOURCE: Eur. J. Clin. Microbiol. Infect. Dis. (1992), 11(5), 438-46
CODEN: EJCDEU; ISSN: 0934-9723
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In order to study the resp. roles of oligomannoside sequences in the antigenicity of C. albicans **phosphopeptidomannan**, a method was developed for constructing neoglycolipids from oligomannosides released by depolymn. of this mol. Oligomannosides released by acetolysis were converted to neoglycolipids by coupling them to 4-hexadecylaniline in an equimolar reaction checked by thin layer chromatog. When coated onto microEIA plates, the neoglycolipids exhibited strong reactions which were dose dependent and were saturable with Con A. Reactivity of neoglycolipids with Igs was then tested with a panel of monoclonal and polyclonal antibodies reacting with epitopes present in the original **phosphopeptidomannan**. One of 2 IgM monoclonal antibodies and 2 of 5 monospecific rabbit polyclonal IgG reacted strongly with neoglycolipids therefore providing evidence of the presence of structures mimicking epitopes within the pool of neoglycolipids. When sera from hospital inpatients with various levels of antibodies to C. albicans were tested, a correlation was obsd. between the EIA to detect neoglycolipids and the EIA to detect **phosphopeptidomannan**. Successive sera from all patients showing seroconversion in the immunofluorescence assay had increased EIA signals for neoglycolipids.

L17 ANSWER 20 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1992:168596 HCAPLUS
DOCUMENT NUMBER: 116:168596
TITLE: Proton NMR spectroscopy of manno-oligosaccharides of the .beta.-1,2-linked series released from the

phosphopeptidomannan of Candida albicans VW-32 (serotype A)
AUTHOR(S): Faille, Christine; Wieruszeski, Jean Michel; Lepage, Gilbert; Michalski, Jean Claude; Poulain, Daniel; Strecker, Gerard
CORPORATE SOURCE: Unite 42, INSERM, Villeneuve d'Ascq, 59655, Fr.
SOURCE: Biochem. Biophys. Res. Commun. (1991), 181(3), 1251-8
CODEN: BBRCA9; ISSN: 0006-291X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Mannooligosaccharides (d.p. = 2 to >15) were released by mild acid hydrolysis from the **phosphopeptidomannan** of a C. albicans strain of A serotype (VW-32). Mannooligosaccharides ranging from biose to heptaose were obtained in appreciable amts. Structural investigations of these oligosaccharides showed them to be of the .beta.-1,2-linked series. The occurrence of such compds. had been previously reported in other strains of C. albicans. Here, the assignment of the structural reporter groups of each of them, and general rules applicable for the 1H NMR spectral anal. of linear mannooligosaccharide of the general structure, Man(.beta.1-2)[Man(.beta.1-2)nMan, are reported.

L17 ANSWER 21 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1992:126687 HCAPLUS
DOCUMENT NUMBER: 116:126687
TITLE: Presence of human antibodies reacting with Candida albicans O-linked oligomannosides revealed by using an enzyme-linked immunosorbent assay and neoglycolipids
AUTHOR(S): Hayette, Marie Pierre; Strecker, Gerard; Faille, Christine; Dive, Daniel; Camus, Daniel; Mackenzie, Donald W. R.; Poulain, Daniel
CORPORATE SOURCE: CERTIA, Villeneuve d'Ascq, 59650, Fr.
SOURCE: J. Clin. Microbiol. (1992), 30(2), 411-17
CODEN: JCMIDW; ISSN: 0095-1137
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In order to study the presence of antibodies directed against C. albicans O-linked oligomannosides (oligomannosides O) in patient sera, an ELISA was developed involving neoglycolipids constructed with these residues (NGLO). Oligomannosides O released by mild alk. degrdn. of the C. albicans cell wall **phosphopeptidomannan** (PPM) contained 1-7 mannose residues, among which the quant. major components, mannobiose and mannotriose, were shown by 1H NMR to contain exclusively .alpha.(1-2) linkages. The pool of oligomannosides was converted to neoglycolipids by coupling them to 4-hexadecylaniline in an equimolar reaction checked by thin-layer chromatog. These neoantigens, coated on ELISA plates, were tested against 15 pairs of sera corresponding to individual seroconversions obsd. in patients during the course of a mycol. and serol. survey of candidiasis. For all patients, seroconversions resulted in an increased level of antibodies against NGLO. A correlation was obsd. between the results of ELISA-NGLO, ELISA involving the original PPM mol., and routine antibody detection tests, indirect immunofluorescence assay, and cocounterimmunoelectrophoresis. These results thus demonstrate the synthesis of human antibodies reactive with oligomannosides O constitutive of the C. albicans mannan mol. which have been previously described as exhibiting an inhibitory effect on human lymphocytic proliferation.

L17 ANSWER 22 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1991:579008 HCAPLUS
DOCUMENT NUMBER: 115:179008

TITLE: Kluyveromyces bulgaricus yeast lectins. Isolation of two galactose-specific lectin forms from the yeast cell wall
AUTHOR(S): Almahmood, Salman; Colin, Sylvie; Bonaly, Roger
CORPORATE SOURCE: Lab. Biochim. Microbienne, Fac. Sci. Pharm. Biol., Nancy, 54001, Fr.
SOURCE: J. Biol. Chem. (1991), 266(31), 20882-7
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Incubation of galactose treated K. bulgaricus yeast cells in EDTA/phosphate-buffered saline led to an ext. possessing hemagglutinating and yeast flocculating properties. Purifn. of this ext. by affinity chromatog. and gel filtration gave two lectin forms, Kb-CWL I and Kb-CWL II, with an apparent mol. mass of 38,000 and 150,000 Da, resp. SDS-polyacrylamide gel electrophoresis revealed that Kb-CWL I and Kb-CWL II were dimeric and octameric of a subunit of 18,900 Da. At high concn., purified Kb-CWL I assocd. to give Kb-CWL II. This assocn. seemed to be independent of pH. The two lectin forms were glycoproteins, the peptide counterpart was very rich in lysine, glutamine acid, and glycine, and the carbohydrate part represented 1% of the whole mol. and was composed of glucose, mannose, and arabinose. The two lectin forms (KB-CWL I and Kb-CWL II) agglutinated human red blood cells and flocculated EDTA-treated K. bulgaricus yeast cells. The activity of both lectin forms required Ca2+ ions, while Sr2+ showed some competitive inhibition. Optimal activity was obtained within a pH range of 4- 6.5 for both forms. Temps. of 80-90.degree. for 20 min, or proteolytic treatment reduced irreversibly the activity of Kb-CWL I and Kb-CWL II. The role of the cell wall **phosphopeptidomannan** as a ligand and a potential physiol. receptor of these lectin forms was demonstrated.

L17 ANSWER 23 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1991:75998 HCAPLUS
DOCUMENT NUMBER: 114:75998
TITLE: Cloning of two genes from Bacillus circulans WL-12 which encode 1,3-.beta.-glucanase activity
AUTHOR(S): Fiske, Michael J.; Tobey-Fincher, Karen L.; Fuchs, Roy L.
CORPORATE SOURCE: Biol. Sci. Dep., Monsanto Co., St. Louis, MO, 63198, USA
SOURCE: J. Gen. Microbiol. (1990), 136(12), 2377-83
CODEN: JGMIAN; ISSN: 0022-1287
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Two genes encoding distinct 1,3-.beta.-glucanases have been cloned from B. circulans and expressed in Escherichia coli. A cosmid library of B. circulans WL-12 DNA was constructed in the broad-host-range cosmid pLAFR1 and screened in E. coli for clones which exhibited 1,3-.beta.-glucanase activity. Two 1,3-.beta.-glucanase-pos. clones were identified which contained genes encoding 2 independent 1,3-.beta.-glucanases as shown by biochem., phys. and mol. analyses. The cosmids, designated pMON5401 (27.1 kb insert) and pMON5402 (24.7 kb insert), encoded 68 kDa and 40 kDa, 1,3-.beta.-glucanases, resp. Both 1,3-.beta.-glucanases were purified from their resp. E. coli strains, characterized biochem., and were shown to exhibit lytic activity against **purified yeast cell wall** prepns.

L17 ANSWER 24 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1991:22021 HCAPLUS

DOCUMENT NUMBER: 114:22021
TITLE: Immunoreactivity of neoglycolipids constructed from oligomannosidic residues of the Candida albicans cell wall
AUTHOR(S): Faille, Christine; Michalski, Jean Claude; Strecker, Gerard; Mackenzie, Donald W. R.; Camus, Daniel; Poulain, Daniel
CORPORATE SOURCE: Inst. Natl. Sante Rech. Med., Villeneuve d'Ascq, 59650, Fr.
SOURCE: Infect. Immun. (1990), 58(11), 3537-44
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English

AB To establish a model to study the immunoreactivity of oligosaccharidic structures from the C. albicans cell wall, neoglycolipids were constructed by using oligomannosides released after mild acid hydrolysis of the **phosphopeptidomannans** isolated from yeast forms. From a mixt. of mannooligosaccharides ranging from mannobiose to mannononaose, the structure of a quant. major component (mannotriose) was detd. to be Man (.beta.1-2) Man (.beta.1-2) Man.alpha. by 1H NMR anal. After coupling of the pool of oligosaccharides to a lipid (4-hexadecylaniline), the synthesized mols. were injected into mice and rats. Antibody responses were detected on ELISA plates coated with either **phosphopeptidomannans** or neoglycolipids. The hybrid mols. exhibited both immunogenicity and antigenicity. The kinetics of antibody responses as well as immunofluorescence patterns obsd. on whole C. albicans cells strongly mimicked results from the immunization of animals with natural antigens. Construction of neoglycolipids could therefore provide an interesting approach to the study of specific oligosaccharides of C. albicans and their recognition by the host immune system.

L17 ANSWER 25 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1990:115456 HCAPLUS
DOCUMENT NUMBER: 112:115456
TITLE: Isolation and structure of surface **phosphopeptidomannans** from the cell wall of Saccharomyces cerevisiae (wild strain and mutant)
AUTHOR(S): Al-Bassam, R.; Bonaly, R.
CORPORATE SOURCE: Genet. Eng. Biotechnol. Res. Cent., Sci. Res. Counc., Baghdad, Iraq
SOURCE: MIRCEN J. Appl. Microbiol. Biotechnol. (1989), 5(3), 363-73
CODEN: MJABEY; ISSN: 0265-0762
DOCUMENT TYPE: Journal
LANGUAGE: French

AB Treatment with ethylenediamine of the cell walls from S. cerevisiae released a **phosphopeptidomannan**. This glycoprotein was isolated in a pure state after sepn. of the different sol. products by gel filtration. This compd. contained 91-93% mannose, 0.32-0.42% N-acetylglucosamine, 0.9-1.3% phosphate and, 6-7% amino acids. The mannose units were linked by 1 .fwdarw. 6 (main chain) and by 1 .fwdarw. 2 and 1 .fwdarw. 3 (branched chain) bonds. Short oligosaccharides are bound to serine of the peptide chain by O-glycosidic linkages while polysaccharides are attached to asparagine of this peptide chain by N-glycosidic linkages, through the intermediate of N-acetylchitobiose. The mannan of the mutant strain is less branched but more phosphorylated.

L17 ANSWER 26 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1989:454038 HCAPLUS

DOCUMENT NUMBER: 111:54038
TITLE: Effects of subinhibitory dose of amphotericin B on cell wall biosynthesis in Candida albicans
AUTHOR(S): Mpona-Minga, M.; Coulon, J.; Bonaly, R.
CORPORATE SOURCE: Fac. Sci. Pharm. Biol., Univ. Nancy I, Nancy, 54001, Fr.
SOURCE: Res. Microbiol. (1989), 140(2), 95-105
CODEN: RMCREW
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Subinhibitory doses of amphotericin B in the culture medium of C. albicans modified yeast cell wall synthesis. Anal. of isolated cell walls showed a decrease in mannose and an increase in amino acid and glucosamine levels. After fractionation of the cell wall by ethylenediamine or pronase digestion, study of the fractions corroborated an outer **phosphopeptidomannan** decrease and an enrichment of matrix constituents. Detn. of the amt. of chitin showed stimulation of synthesis of this amino polysaccharide in yeasts grown in the presence of amphotericin B. Decrease in **phosphopeptidomannans** and high prodn. of other cell wall constituents are probably consequences of modification of the lipidic environment of membrane-bound enzymes by the antifungal polyene action.

L17 ANSWER 27 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1989:152591 HCAPLUS
DOCUMENT NUMBER: 110:152591
TITLE: Isolation of a yeast heptaglucoside that inhibits monocyte phagocytosis of zymosan particles
AUTHOR(S): Janusz, Michael J.; Austen, K. Frank; Czop, Joyce K.
CORPORATE SOURCE: Dep. Med., Harvard Med. Sch., Boston, MA, USA
SOURCE: J. Immunol. (1989), 142(3), 959-65
CODEN: JOIMA3; ISSN: 0022-1767
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To isolate a unit ligand recognized by human monocyte .beta.-glucan receptors, acid-solubilized oligoglucosides were prepd. by partial acid hydrolysis of **purified yeast cell walls**, gel filtered sequentially on Bio-Gel P-4 and P-2, derivatized with 2-aminopyridine, and sepd. by normal-phase HPLC. Ligand recognition was assessed by quantitating the effect of pretreatment with isolated materials on the capacities of adherent monocytes to phagocytose zymosan particles. At a concn. of 1.6 ng/mL, the derivatized yeast hepatoglucoside reduced the nos. of monocytes ingesting zymosan and glucan particles by 44% and 45%, resp. Thus, a heptaglucoside present in yeast cell walls is a unit ligand for human monocyte .beta.-glucan receptors.

L17 ANSWER 28 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1987:552768 HCAPLUS
DOCUMENT NUMBER: 107:152768
TITLE: Structural modifications of mannans during flocculation of Kluyveromyces bulgaricus
AUTHOR(S): Mahmood, S. Al; Giummelly, P.; Bonaly, R.
CORPORATE SOURCE: Lab. Biochim. Microb., Fac. Pharm., Nancy, F-54001, Fr.
SOURCE: Appl. Microbiol. Biotechnol. (1987), 26(5), 462-7
CODEN: AMBIDG; ISSN: 0175-7598
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Optimum flocculating conditions for the yeast K. bulgaricus in a

glucose-bactopeptone medium are obtained with 1.8 mM Ca for a carbohydrate/(N .times. 6.25) ratio of 16. A comparative study of the wall **phosphopeptidomannans** extd. by pronase from flocculating and nonflocculating cultures showed that flocculation was assocd. with the following characteristics: increase of the amt. and mol. wt. of mannans and higher phosphate contents, decrease of the amino acid and glucosamine rates with a relative increase in hydroxy amino acids and decrease of basic amino acids, and absence of galactose in both polymers, although the flocculation was reversed by D-galactose. Acetolysis of the **phosphopeptidomannan** showed that the phenotypic expression of flocculation is correlated, at the structural level, with a lower content of N-acetylhexosamine residues linked to disaccharides and a higher content of phosphodisaccharides. According to these results the Ca-dependent synthesis of a **phosphopeptidomannan** (instead of a N-acetylglucosaminopeptidomannan) with a larger and more branched structure, is necessary to allow the aggregation of the cells via a presumed D-galactose-sensitive flocculating factor.

L17 ANSWER 29 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1985:92627 HCAPLUS
DOCUMENT NUMBER: 102:92627
TITLE: Analysis of wall glucans from yeast, hyphal and germ-tube forming cells of Candida albicans
AUTHOR(S): Gopal, Pramod K.; Shepherd, Maxwell G.; Sullivan, Patrick A.
CORPORATE SOURCE: Dep. Biochem. Exp. Oral Biol. Unit, Univ. Otago, Dunedin, N. Z.
SOURCE: J. Gen. Microbiol. (1984), 130(12), 3295-301
CODEN: JGMIAN; ISSN: 0022-1287
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Acid-sol. and alkali-insol. glucan fractions were prepd. from yeast, hyphal and germ-tube forming cells of C. albicans. Alkali-insol. glucan was also extd. from **purified yeast cell walls**. Paper chromatog. of partial acid hydrolyzates confirmed that the glucan prepns. contained .beta.(1.fwdarw.3)- and .beta.(1.fwdarw.6)-chains but not mixed intra-chain .beta.(1.fwdarw.3)/(1.fwdarw.6) linkages. Methylation and 13C-NMR analyses showed that the acid-sol. glucan consisted of a highly branched polymer composed mainly (67.0-76.6%) of .beta.(1.fwdarw.6)-linked glucose residues. The alkali-insol. glucan from yeast and hyphal cells contained 29.6-38.9% .beta.(1.fwdarw.3) and 43.3-53.2% .beta.(1.fwdarw.6) linkages. Alkali-insol. glucan from germ-tube forming cells consisted of 67.0% .beta.(1.fwdarw.3) and 14% .beta.(1.fwdarw.6) linkages. Branch points accounted for 6.7%, 12.3%, and 17.4% of the residues in the alkali-insol. glucan of yeast, germ-tube forming and hyphal cells, resp.

L17 ANSWER 30 OF 30 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1978:611623 HCAPLUS
DOCUMENT NUMBER: 89:211623
TITLE: Production and ecological significance of yeast cell wall-degrading enzymes from Oerskovia
AUTHOR(S): Mann, J. W.; Jeffries, T. W.; Macmillan, J. D.
CORPORATE SOURCE: Cook Coll., Rutgers, State Univ., New Brunswick, N. J., USA
SOURCE: Appl. Environ. Microbiol. (1978), 36(4), 594-605
CODEN: AEMIDF; ISSN: 0099-2240
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Motile actinomycetes capable of degrading walls of viable yeast cells were isolated from soil and identified as Oerskovia xanthineolytica. A lytic assay based on susceptibility of enzyme-treated cells to osmotic shock was developed, and 10 of 15 strains of O. xanthineolytica, O. turbata, and nonmotile Oerskovia-like organisms from other collections possessed yeast lytic activities. All lytic strains produced laminaranase and .alpha.-mannanase, but the amts. were not proportional to the obsd. lytic activities. The Oerskovia isolates demonstrated chemotactic, predatory activity against various yeast strains and killed yeasts in mixed cultures. Of 15 C sources tested for prodn. of lytic enzyme, **purified yeast cell walls** elicited the highest activity. Glucose repressed enzyme prodn. and caused cells to remain in the microfilamentous and motile rod stages of the Orskovia cell cycle. Crude lytic activity was optimal at pH 5.6-7.0 and inactivated by heating for 6 min at 50.degree.. Partial purifn. by isoelec. focusing showed all lytic activity was assocd. with four .beta.-(1.fwdarw.3)-glucanases. The absence of protein disulfide reductase, N-acetyl-.beta.-D-hexosaminidase, and phosphomannanase in crude prepns. indicated the principle enzyme responsible for yeast wall lysis was a .beta.-(1.fwdarw.3)-glucanase that produced relatively little reducing sugar from yeast glucan.

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L1	27	SEA FILE=REGISTRY ABB=ON PLU=ON OMPC/BI
L2	4	SEA FILE=REGISTRY ABB=ON PLU=ON PANCA/BI
L5	145	SEA FILE=REGISTRY ABB=ON PLU=ON IGA/BI
L6	14704	SEA FILE=HCAPLUS ABB=ON PLU=ON L5 OR IGA OR IMMUNOGLOBULIN(W)A
L7	574	SEA FILE=HCAPLUS ABB=ON PLU=ON L1 OR OMPC OR OMP(W)C
L8	61	SEA FILE=HCAPLUS ABB=ON PLU=ON L2 OR PANCA OR PERINUCLEAR(W)ANCA
L9	362	SEA FILE=HCAPLUS ABB=ON PLU=ON ANTI(W)(L7 OR L8 OR SACCHAROMYCES OR CEREVISIAE OR (I2 OR I(W)2)(W)?PEPTIDE? OR NEUTROPHIL)
L10	9	SEA FILE=HCAPLUS ABB=ON PLU=ON L6 AND L9
L12	243	SEA FILE=HCAPLUS ABB=ON PLU=ON (CROHN? OR INFLAMMATORY(W)BOWEL(W)DISEASE? OR IBD)(L)(L7 OR L8 OR (I2 OR I(W)2)(W)?PEPTIDE? OR NEUTROPHIL OR ANTINEUTROPHIL? OR ANCA OR ASCA)
L13	9	SEA FILE=HCAPLUS ABB=ON PLU=ON L12 AND (SACCHAROMYCES OR CEREVISIAE)
L14	7	SEA FILE=HCAPLUS ABB=ON PLU=ON L13 NOT L10
L15	5	SEA FILE=HCAPLUS ABB=ON PLU=ON (L6 AND L12) NOT (L10 OR L14)
L16	32	SEA FILE=HCAPLUS ABB=ON PLU=ON PHOSPHOPEPTIDOMANNAN? OR PURIFIED(W)YEAST(W)CELL(W)WALL?
L17	30	SEA FILE=HCAPLUS ABB=ON PLU=ON L16 NOT (L10 OR L14 OR L15)
L18	214504	SEA FILE=HCAPLUS ABB=ON PLU=ON PPM
L21	8	SEA FILE=HCAPLUS ABB=ON PLU=ON L18 AND (CROHN? OR INFLAMMATORY(W)BOWEL(W)DISEASE? OR IBD)
L22	8	SEA FILE=HCAPLUS ABB=ON PLU=ON L21 NOT (L10 OR L14 OR L15 OR L17)

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L22 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:455345 HCAPLUS
TITLE: Response of foodborne Salmonella spp. marker strains inoculated on egg shell surfaces to disinfectants in a commercial egg washer
AUTHOR(S): Knape, K. D.; Carey, J. B.; Ricke, S. C.
CORPORATE SOURCE: Poultry Science Department, Texas A and M University, College Station, TX, 77843-2472, USA
SOURCE: J. Environ. Sci. Health, Part B (2001), B36(2), 219-227
CODEN: JPFCD2; ISSN: 0360-1234
PUBLISHER: Marcel Dekker, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The objective of this study was to det. the effectiveness of an iodine based disinfectant (**IBD**, Iocide, Biomedical Development Corporation, San Antonio, TX) on Salmonella enteritidis and S. typhimurium inoculated on egg shell surfaces under simulated industry egg processing conditions with a com. egg washer used as the sanitizer delivery system. Re-circulated egg washer water contg. 1.40-2.85 g/l total dissolved solids was obtained from a com. egg processing. Sanitizing treatments consisted of distd. deionized water (DDW), **IBD**, and chlorine (CL; 200 **ppm**). All treatments (DDW, **IBD** and CL) significantly (p < 0.05) decreased Salmonella spp. populations on the shell compared to dry (no spray) egg controls. However, efficacy of egg sanitizers appeared to be dependent on the level of total dissolved solids in the egg wash water.
REFERENCE COUNT: 32
REFERENCE(S): (1) Berchieri, A; Avian Pathol 1996, V25, P663 HCAPLUS
(2) Bianchi, A; J Food Prot 1994, V57, P301 HCAPLUS
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(6) Denyer, S; Int Biodeter Biodegrad 1998, V41, P261 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:370966 HCAPLUS
DOCUMENT NUMBER: 133:163584
TITLE: Ascorbic acid supplementation improved antibody response to infectious bursal disease vaccination in chickens
AUTHOR(S): Amakye-Anim, J.; Lin, T. L.; Hester, P. Y.; Thiagarajan, D.; Watkins, B. A.; Wu, C. C.
CORPORATE SOURCE: Department of Veterinary Pathobiology, Purdue University, West Lafayette, IN, 47907-1175, USA
SOURCE: Poult. Sci. (2000), 79(5), 680-688
CODEN: POSCAL; ISSN: 0032-5791
PUBLISHER: Poultry Science Association, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The purpose of the present study was to det. if supplementation of ascorbic acid (AA) to the diet would have a beneficial effect on infectious bursal disease (**IBD**) vaccination of chickens for protection against infectious bursal disease virus (IBDV) infection. Two

hundred forty specific pathogen-free (SPF) chickens were divided into eight exptl. groups. A 2 .times. 2 .times. 2 factorial arrangement in a completely randomized design was used; AA supplementation at 1,000 **ppm** in the diet, vaccination, and challenge were the main effects. Prior to challenge and 10 d after challenge, serum AA concn., serum corticosterone concn., ELISA antibody titer to IBDV, body wt., bursa-to-body wt. (B:B) ratio, and bursal histol. score (BHS) were detd. Nonvaccinated chickens fed a diet supplemented with AA did not exhibit clin. signs or mortality following challenge, whereas AA-unsupplemented counterparts had 100% cumulative morbidity and 30% cumulative mortality. Serum AA levels of AA-supplemented and vaccinated chickens were significantly ($P < 0.05$) higher than AA-unsupplemented and vaccinated chickens. Fourteen days following vaccination, significantly ($P < 0.05$) higher ELISA titers to IBDV were obsd. in vaccinated chickens supplemented with AA as compared to AA-unsupplemented counterparts. Ascorbic acid-supplemented chickens, esp. those also vaccinated, had higher body wt. gains as compared to the AA-unsupplemented chickens. Ascorbic acid-supplemented chickens challenged with IBDV did not show any clin. signs or mortality. The results suggest that supplementation of AA at 1,000 **ppm** in the diet has beneficial effects on antibody response to **IBD** vaccination and body wt. gain.

REFERENCE COUNT: 36

REFERENCE(S):
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(3) Beutler, H; Methods of Enzymatic Analysis 1984, V6, P376 HCAPLUS
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ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2000:236890 HCAPLUS

DOCUMENT NUMBER: 133:119558

TITLE: Effect of ascorbic acid supplementation on the immune response of chickens vaccinated and challenged with infectious bursal disease virus

AUTHOR(S): Wu, C. C.; Dorairajan, T.; Lin, T. L.

CORPORATE SOURCE: School of Veterinary Medicine, Department of Veterinary Pathobiology, Purdue University, West Lafayette, IN, USA

SOURCE: Vet. Immunol. Immunopathol. (2000), 74(1-2), 145-152
CODEN: VIIMDS; ISSN: 0165-2427

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB One-day-old chickens were divided into two groups and reared under similar conditions. One group was fed a diet supplemented with 1000 **ppm** ascorbic acid and the other group was fed an identical diet, but not supplemented with ascorbic acid. Both groups were vaccinated against infectious bursal disease (**IBD**) at 7 days of age and challenged orally with 4.times.105 of 50% embryo-lethal-dose IBDV 14 days later. The no. of anti-IBDV antibody secreting cells, prodn. of interleukin-2 (IL-2) by splenocytes, no. of CD4+, CD8+ and IgM+ cells in spleen and IgM+ cells in bursa of Fabricius were compared between the two groups at 7 days (prior to vaccination), 21 days (14 days post-vaccination and prior to challenge) and 31 days (10 days post-challenge) of age. The no. of CD8+ in spleen at 7 days of age and IgM+ cells in bursa at 7, 21 and 31 days of

age were significantly higher in ascorbic acid supplemented group (P<0.05). Prodn. of IL-2 by splenocytes was higher as indicated by higher stimulation indexes in ascorbic acid supplemented group. The no. of anti-IBDV IgG antibody secreting cells in spleen at 21 and 31 days of age were significantly higher in ascorbic acid supplemented group (P<0.05). Dietary supplementation of ascorbic acid may ameliorate the immunosuppression caused by IBDV vaccination and improve humoral and cellular immune responses.

REFERENCE COUNT: 19
REFERENCE(S): (3) Chan, M; J Immunol 1988, V140, P2133 HCAPLUS
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ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:58945 HCAPLUS
DOCUMENT NUMBER: 132:329723
TITLE: Effect of the proton pump inhibitor on breath hydrogen and methane concentrations
AUTHOR(S): Ohbayashi, Takaharu
CORPORATE SOURCE: Department of Internal Medicine, Teikyo University School of Medicine, Japan
SOURCE: Teikyo Igaku Zasshi (1999), 22(2), 197-206
CODEN: TIGZDZ; ISSN: 0387-5547
PUBLISHER: Teikyo Daigaku Igakubu
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB Anal. of breath hydrogen and methane is a simple and noninvasive technique for estg. intestinal fermn. In this study I investigated the effects of proton pump inhibitor (PPI) on breath hydrogen and methane. The breath hydrogen and methane concns. (mean SD) in 29 healthy subjects were 4.68+4.01 **ppm** and 0.96+1.40 **ppm**, resp., and they showed an inverse correlation. The breath hydrogen concn. was increased in patients with various gastrointestinal diseases including **inflammatory bowel diseases**, chronic liver diseases and acid related diseases. But the breath methane concn. was increased only in patients with acid related diseases who were taking proton pump inhibitor (PPI). Eight of 10 patients suffering from acid related diseases who had been "methane non -producers (those who do not excrete methane in the breath) " became "methane producers (those who excrete methane in the breath)" after they were treated with PPI. Eight of 10 healthy "methane non-producers" became "methane producers" after they took PPI for 2 wk, and all of them returned to being "methane non-producers" again 2 wk after they stopped taking PPI. In conclusion, PPI converts "methane non-producers" into "methane producers", probably by influencing the intestinal bacterial flora or gas-producing function of certain bacteria.

L22 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:809258 HCAPLUS
DOCUMENT NUMBER: 132:307482
TITLE: Comparison of chlorine with an iodine-based compound on eggshell surface microbial populations in a commercial egg washer
AUTHOR(S): Knape, K. D.; Carey, J. B.; Burgess, R. P.; Kwon, Y.

M.; Ricke, S. C.
CORPORATE SOURCE: Department of Poultry Science, Texas A and M University, College Station, TX, 77843-2472, USA
SOURCE: J. Food Saf. (1999), 19(3), 185-194
CODEN: JFSADP; ISSN: 0149-6085
PUBLISHER: Food & Nutrition Press, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Microbial contamination of egg shells is of great importance in the com. prodn. of table eggs. The objective of this project was to det. the effectiveness of an iodine-based disinfectant (**IBD**; Iocide) on the microbial population of eggshell surfaces under simulated industry egg processing conditions with a com. egg washer used as the delivery system for sanitizers. Recirculated egg washer water contg. 3.69-5.81 log colony-forming units (CFU)/mL aerobic organisms and 2.02-2.47 g/L total dissolved solids (TDS) was obtained from a com. egg processing facility and used to simulate conditions found in the com. egg industry. Sanitizing treatments consisted of distd. deionized water (DDW), **IBD**, and chlorine (CL, 200 **ppm**). Enumeration of aerobic plate populations indicated that **IBD** and CL treatment significantly ($p < 0.05$) decreased microbial populations on the shell compared to DDW treatment when egg wash water TDS were lower (2.02-2.03 g/L) and wash water aerobic plate counts (APC) were higher (5.05-5.85 log CFU/mL). When egg wash water TDS was higher (2.47 g/L) and wash water APC were lower (3.69 log CFU/mL) sanitizers were not effective in reducing egg shell microbial populations. No difference in egg shell APC counts was detected between the **IBD** and CL. In a second trial, cycloheximide or tetracycline amendments were added to media to test the effectiveness of the treatments on either mold and fungi or bacteria alone. When wash water TDS were higher (2.44-2.46 g/L) the sanitizers were again less effective against bacteria compared to samples from lower TDS while fungal populations did not show any significant differences among the treatments. It was concluded from this study that the **IBD** is an effective sanitizer when used in conjunction with a com. egg washer but potential efficacy is dependent on the level of TDS in the egg wash water.

REFERENCE COUNT: 29
REFERENCE(S):
(2) Berchieri, A; Avian Pathol 1996, V25, P663 HCAPLUS
(3) Bianchi, A; J Food Prot 1994, V57, P301 HCAPLUS
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ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:277431 HCAPLUS
DOCUMENT NUMBER: 131:97094
TITLE: Evaluation of 5-aminosalicylic acid (5-ASA) for cancer chemoprevention: lack of efficacy against nascent adenomatous polyps in the ApcMin mouse
AUTHOR(S): Ritland, Steve R.; Leighton, Jonathan A.; Hirsch, Rhoda Elison; Morrow, Jason D.; Weaver, Amy L.; Gendler, Sandra J.
CORPORATE SOURCE: Departments of Biochemistry and Molecular Biology [S. R. R., S. J. G.], Mayo Clinic Scottsdale, Scottsdale, AZ, 85259, USA

SOURCE: Clin. Cancer Res. (1999), 5(4), 855-863
CODEN: CCREF4; ISSN: 1078-0432
PUBLISHER: American Association for Cancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Recent exptl. and epidemiol. evidence suggests that nonsteroidal anti-inflammatory drugs (NSAIDs) are effective in the prevention of colorectal cancer. However, the toxicity assocd. with the long-term use of most classical NSAIDs has limited their usefulness for the purpose of cancer chemoprevention. **Inflammatory bowel disease** (**IBD**) patients, in particular, are sensitive to the adverse side effects of NSAIDs, and these patients also have an increased risk for the development of intestinal cancer. 5-Aminosalicylic acid (5-ASA) is an anti-inflammatory drug commonly used in the treatment of **IBD** and may provide protection against the development of colorectal cancer in these patients. To directly evaluate the ability of 5-ASA to suppress intestinal tumors, we studied several formulations of 5-ASA (free acid, sulfasalazine, and Pentasa) at multiple oral dosage levels [500, 2400, 4800, and 9600 parts/million (**ppm**)] in the adenomatous polyposis coli (Apc) mouse model of multiple intestinal neoplasia (Min). Although the ApcMin mouse is not a model of colitis-assocd. neoplasia, it is, nonetheless, a useful model for assessing the ability of anti-inflammatory agents to prevent tumor formation in a genetically preinitiated population of cells. We used a study design in which drug was provided ad libitum through the diet beginning at the time of weaning (28 days of age) until 100 days of age. We included 200 **ppm** of piroxicam and 160 **ppm** of sulindac as pos. controls, and the neg. control was AIN-93G diet alone. Treatment with either piroxicam or sulindac produced statistically significant redns. in intestinal tumor multiplicity (95% and 83% redns. in tumor no., resp.; $P < 0.001$ vs. controls). By contrast, none of the 5-ASA drug formulations or dosage levels produced consistent dose-progressive changes in polyp no., distribution, or size, despite high luminal and serum concns. of 5-ASA and its primary metabolite N-acetyl-5-ASA. Thus, 5-ASA does not seem to possess direct chemosuppressive activity against the development of nascent intestinal adenomas in the ApcMin mouse. However, because intestinal tumor development in the ApcMin mouse is driven by a germline mutation in the Apc gene rather than by chronic inflammation, we caution that these findings do not definitively exclude the possibility that 5-ASA may exert a chemopreventive effect in human **IBD** patients.

REFERENCE COUNT: 51
REFERENCE(S):
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ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:678387 HCAPLUS
DOCUMENT NUMBER: 127:306849
TITLE: Effects of .beta.-carotene and canthaxanthin on aflatoxicosis in broilers
AUTHOR(S): Okotie-Eboh, G. O.; Kubena, L. F.; Chinnah, A. D.; Bailey, C. A.
CORPORATE SOURCE: Veterans Affairs Medical Center, Houston, TX, 77030, USA

SOURCE: Poult. Sci. (1997), 76(10), 1337-1341
CODEN: POSCAL; ISSN: 0032-5791
PUBLISHER: Poultry Science Association, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In 2 .times. 3 factorial expts., 240 broiler chicks were fed diets contg. 0, 0.01, and 0.02% .beta.-carotene or canthaxanthin with or without 5 **ppm** aflatoxin to det. the effects of these two carotenoids on the health and well-being of broilers subjected to aflatoxin poisoning. Neither .beta.-carotene nor canthaxanthin was effective at overcoming the growth-depressing effects of aflatoxin. Relative liver wts. were significantly higher in broilers receiving dietary aflatoxin in the presence of .beta.-carotene but not canthaxanthin. Canthaxanthin and .beta.-carotene had no effect on antibody prodn. against infectious bursal disease (**IBD**). Interestingly, the secondary antibody prodn. against **IBD** was enhanced by the presence of aflatoxin in the diet. Canthaxanthin significantly increased the concns. of cholesterol, total protein, uric acid, and triglycerides, all of which were significantly depressed by aflatoxin. .beta.-Carotene did not affect any of the measured blood analytes. There was a significant interaction between canthaxanthin and aflatoxin with respect to creatine kinase activity. The creatine kinase activity decreased as the dietary canthaxanthin increased in the presence of aflatoxin. Thus, .beta.-carotene is not effective at ameliorating aflatoxicosis in broiler chickens but canthaxanthin may be somewhat effective with respect to certain clin. blood chem. indicators.

L22 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1995:824907 HCAPLUS
DOCUMENT NUMBER: 123:235894

TITLE: Oxygen incorporation in aluminum nitride via extended defects. Part III. Reevaluation of the polytypoid structure in the aluminum nitride-aluminum oxide binary system

AUTHOR(S): Westwood, Alistair D.; Youngman, Robert A.; McCartney, Martha R.; Cormack, Alstair N.; Notis, Michael R.
CORPORATE SOURCE: Department of Materials Science and Engineering, Lehigh University, Bethlehem, PA, 18015, USA

SOURCE: J. Mater. Res. (1995), 10(10), 2573-85
CODEN: JMREEE; ISSN: 0884-2914
DOCUMENT TYPE: Journal
LANGUAGE: English

AB This paper extends the concepts that were developed to explain the structural rearrangement of the wurtzite AlN lattice due to incorporation of small amts. of oxygen, and to directly use them to assist in understanding the polytypoid structures. Conventional and high-resoln. transmission electron microscopy, specific electron diffraction expts., and atomistic computer simulations have been used to investigate the structural nature of the polytypoids. The exptl. observations provide compelling evidence that polytypoid structures are not arrays of stacking faults, but are rather arrays of inversion domain boundaries (**IBD** 's). A new model for the polytypoid structure is proposed with the basic repeat structural unit consisting of a planar IDB-P and a corrugated IDB. This model shares common structural elements with the model proposed by Thompson, even though in his model the polytypoids were described as consisting of stacking faults. Small addns. (.simeq.1000 **ppm**) of silicon were obsd. to have a dramatic effect on the polytypoid structure. First, it appears that the addn. of Si causes the creation of a new variant of the planar IDB (termed IDB-P'), different from the IDB-P

defect obsd. in the AlN-Al2O3 polytypoids; second, the addn. of Si influences the structure of the corrugated IDB, such that it appears to become planar.